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CIRCULATION ELEMENT AND ENVIRONMENTAL IMPACT REPORT

VISALIA GENERAL PLAN

JUNE 1989

City Of Visalia

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The current City of Visalia Circulation Element was prepared in 1987 and finalized in 1989 by DKS Associates of Oakland, California. The Prinicipal-in-Charge for DKS was Daniel T. Smith. The Project Manager, Prinicipal Investigator and author was Stephen J. Lowens. Sandra Walker and Marty Hanneman provided the project cost estimates. City staff comments and directions were provided by Bill Carr, Public Works Director; Britt Fussel, City Engineer; Don Brummet, Community Development Director; Steve Peck, Advanced Planning Manager; and Phyllis Coring, Current Planning Manager.

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INTRODUCTION

AUTHORITY AND PURPOSE OF THE DOCUMENT

The legal authority for the Circulation Element is expressed in Section 65302(b) of the Government Code of the State of California. This element has been a mandatory component of local general plans since 1955. The content of the Circulation Element is required to address the allocation and extent of existing and planned transportation routes and facilities. It is further required to be correlated with the Land Use Element of the general plan in a manner that will assure, to the extent possible, that the planned transportation system adequately accommodates future travel demand so that it will contribute to rather than inhibit the attainment of desired land use patterns.

The purpose of this document is to collect in a single place all of the policies related to transportation and circulation that will affect the future development of the City of Visalia, and to lay out at a policy level a system of streets and highways that will be necessary to support circulation in the City through the year 2010. The document is intended to be a planning level blueprint for circulation in and around the City and as such, a planning tool that will help land use, circulation, neighborhood environment, economic growth and community amenities evolve in an orderly and integrated process.

While the analytical work upon which the document is based looks to the year 2010 as its target, this circulation element is intended to look even further to the future. Clearly, it is unknown in what directions and at what pace the City will grow in the future. However, the City has developed a series of sound policies for developing its circulation system for the portion of the area that has become urbanized to the present date. These policies can be used as a model for the future development of the City. One of the goals of this document is to assure that whatever the direction and whatever the pace, the City will have identified its general blueprint for circulation, assuring that the needs of circulation will continue to be served at the same high levels that they are today.

Visalia is a city that has been designed principally around the personal automobile. Its size and design are such that even if a revolution in transportation occurs in the next 25 years (a very unlikely event), the revolution will come last to the small to medium sized cities like Visalia. Within this framework, this circulation element will focus more closely on the streets and highways portion of the transportation system. At the same time, other modes will continue to play an important function in the community. Accordingly, sections of this circulation element will identify

the needs and directions for public transit, railroads, air service facilities, bicycles, trucks and other means of goods movement.

RELATIONSHIP TO THE GENERAL PLAN

Visalia's last complete revision of its general plan occurred in 1976; revisions have been made periodically since that time, largely in response to specific development proposals. The general plan contains a defined land use plan and circulation system to respond to the expected level of land use. The City expects to prepare a complete general plan revision within the two years following the preparation of this document.

Because this circulation element is being prepared separately from a general plan revision, it must of necessity be tied to both the existing plan and the anticipated revision. The land use assumptions upon which the circulation element must legally be tied to the existing general plan; yet it would be short-sighted to look only to the target year of 1996 upon which the current plan is based. Accordingly, this circulation element is based on a hybrid land use concept. Within the current Urban Development Boundary (shown on the circulation element map enclosed at the end of the document), land use is based on the current general plan. However, a 2010 scenario was also prepared based on State Department of Finance estimates of growth in the County to the year 2010. The incremental growth between the years 1996 and 2010 was added primarily to land between the current Urban Development Boundary and the Urban Area Boundary. It is this transitional area that will receive the most attention in the upcoming general plan revision. This circulation element thus responds to the need to reflect the current general plan as well as looking forward to set out a conceptual blueprint for circulation to the year 2010 and beyond.

SCOPE AND ORGANIZATION

The remainder of this document is organized into six chapters. Chapter II describes and evaluates existing transportation conditions, covering facilities, their use, and problems associated with them in the current environment. Chapter III investigates a forecast of projected transportation conditions in the City in the target year, 2010; it covers projected traffic volumes, their impact on the existing street and highway system, and the need for improved or new facilities that population and employment growth will require. Chapter IV documents a series of policies that are intended to govern implementation of the circulation element, including land use policies that are related to the effectiveness of transportation facilities. Many of these policies were adopted prior to the preparation of this circulation element; others respond to changes brought about by the increasing urbanization of the City.

Chapter V documents the street and highway circulation element. It presents a rationale for the hierarchy of freeways, arterial streets and

collectors that are the framework of the circulation system. It also identifies the standards to which new elements of the circulation system should be constructed. Finally, it identifies the specific freeway, arterial and collector alignments within the greater Visalia urban area as a blueprint for potential future expansion of the City.

Chapter VI documents the way in which other modes besides the automobile will support the circulation element. Policies which are necessary for each of these modes to provide their services are documented. Finally, Chapter VII documents transportation, cost and neighborhood impacts of the proposed circulation element.



EXISTING TRANSPORTATION CONDITIONS

DEFINITION OF ELEMENTS OF THE CIRCULATION SYSTEM

A City's circulation system is composed of a wide range of transportation facilities which serve two basic functions: mobility and land access. Mobility means providing the ability for motorists to travel between their points of interest. Land access means providing for parking, storage or other types of driveway access at the final destination. A circulation element is typically composed of facilities that emphasize mobility or access to different degrees. The following types of facilities are typically defined:

Facility Type	Emphasis
Freeway	Mobility with very limited access
Expressway	Mobility with more frequent access to arterial streets than a freeway, but no direct land access
Arterial	Mobility with access to collectors, some local streets and major traffic generators
Collector	Connects local streets with arterials and also provide access to adjacent land uses; thus balances mobility and access
Local	Provides access to adjacent land uses exclusively

Circulation systems are designed in the above manner largely as a means of achieving the goals of mobility and access in an efficient manner. While it might be desirable to provide both access and mobility on all facilities, no one would favor arterial street standards for all facilities in a circulation system. The designation of the above types of streets thus has a functional and economic value to the community.

Problems occur when a street designed to provide mobility is also asked to provide for land access as well. Land access typically requires driveways or local streets to move vehicles off the street and onto the property in question. When too many access points are provided on a street intended for mobility, friction occurs between vehicles needing access and vehicles using the facility for mobility. The evaluation of Visalia's existing street system will identify locations where this conflict occurs. More importantly, the future definition of the circulation element should be done with a clear understanding of the need for separating the land access and mobility functions.

THE ARTERIAL SYSTEM IN THE REGIONAL CONTEXT

Visalia is currently served by two freeways, the major functions of which is to provide region and state-wide connections with Visalia. SH 99 connects to Los Angeles, Bakersfield, Fresno and Sacramento. SH 198, a freeway within a portion of Visalia only, connects to Hanford, I-5 and SH 101 on the west, and Farmersville, Exeter and Sequoia National Park to the east.

Several arterials in Visalia serve regional functions, as well as, local needs. Mooney Boulevard (SH 63) is one of the major connectors between the Cities of Tulare and Visalia. Demaree and Akers Roads also serve this regional connection. Dinuba Boulevard (SH 63) connects Visalia with Cutler, Orosi and Dinuba, while Plaza (Road 80) is also a major link to Dinuba. Houston Avenue (SH 216) is the link to Ivanhoe and Woodlake. Caldwell Avenue connects Visalia with SH 99 and Hanford to the west and Farmersville and Exeter to the east. Lovers Lane provides direct access between Visalia and SH 137 to the south. Ben Maddox Way provides for connection to Yettem/Seville and SH 201 north of Visalia.

The Visalia Circulation Element has been developed and will be implemented within this regional system. The compatibility of the two systems, local and regional, has been a primary goal of the project. The combination of regional and local requirements places a greater emphasis on these roadways. Careful consideration to these dual responsibilities was given when developing this document.

DESCRIPTION OF THE EXISTING CIRCULATION SYSTEM

Arterial Streets

Based on the existing City General Plan, the following City streets are designated as arterials:

Arterial Streets

North-South	*East-West*
*Plaza Drive	*Caldwell Avenue
Akers Road	Walnut Avenue
*Demaree Road	*Highway 198
*Mooney Boulevard	Noble Avenue
Court Street	Mineral King Avenue
*Lover's Lane	Main Street
*Dinuba Boulevard	Goshen Avenue/Murray Avenue
Locust Street	*Houston Avenue
*Ben Maddox	Riggin Avenue/St. John's Parkway

Nine of these arterials are of regional significance. They have been notated with an asterisk in the listing above.

These arterials have been spaced at approximately 1-mile intervals, and represent the major carrying capacity for traffic to and within the City. The City's current policy is to create "major arterials" at two mile intervals and "arterials" at the one-mile intervals between the majors. Current design standards for a major arterial are an 86-110 foot right-of- way which, when built to its full carrying capacity, supports two lanes for through traffic in each direction and a median for left turning traffic; where width is sufficient, a curb lane for parking is provided. In some portions of the City, the median has been paved to create specific left- and u-turn bays; in other locations painted medians with optional two way left turn lanes are the norm.

Arterial streets currently are built to an 84 foot right-of-way section. Normal striping includes two lanes for through traffic in each direction and a parking lane on either side. At major intersections, parking is prohibited and a left turn lane is striped. Lack of left-turning lanes at all intercepting cross-streets on these arterials leads to occasional delay to through traffic.

These standards have changed over time, and some of the older areas of the City have streets designated as arterials which do not conform to current standards. These streets include portions of Main Street, Court Street and Houston Avenue. In addition, specific plans for some areas have been developed to a completely different set of standards. The City's Northeast Area Plan is based on a set of standards for arterials and collectors that is intended to be used exclusively for that area.

Collector Streets

The following streets are defined as collectors in the current general plan:

North-South	*East-West*
Shirk Road	Hurley Avenue
Linwood Avenue	Goshen/Murray east of Demaree
Chinowth Road	Center Street
County Center Road	Acequia Street
Woodland Drive	Tulare Avenue
Divisadero Street	Whitendale Avenue
Hall Avenue	Ferguson Avenue
Giddings Avenue	
Conyer Street	
Locust Street South of 198	
Court Street North of the Oval	
Northeast Third Avenue	
Santa Fe Avenue	
Pinkham Road	

The City currently has improvement standards for major and minor collector streets, though all collectors are treated equally in the General Plan. The standard for major collectors is 84 feet, similar to the standard



for arterials. Minor collectors are built to a standard of 56 feet. Typically, the streets do not include a raised median. They may be paved for either two lanes in each direction plus parking, or one lane in each direction with painted median turn lanes and bicycle lanes. Again, the Northeast Area Plan contains a different series of standards than the City as a whole. All streets not designated as freeways, arterials or collectors are grouped under the general classification of local streets. The improvement standards for local streets are similar to those for minor collectors.

EVALUATION OF VISALIA'S EXISTING CIRCULATION SYSTEM

This evaluation of Visalia's circulation system focuses on two major criteria: capacity and connectivity. Capacity refers to the ability of the street system to adequately serve the demand placed on it. It is thus a good measure of how well the mobility needs of the City are provided. Connectivity is defined less precisely as a measure of how well various parts of the City are joined together, and how easy it is to move between different parts of the City. Connectivity is also related to how well, in a more global sense, land access is provided in the City.

Description of Capacity Evaluation

The capacity of a roadway is affected by a number of factors, including the street's width, the number of crossing arterials and collectors, the amount of green time given to the street at each signal, the presence or absence of on-street parking, the number of driveways, and related factors. Daily capacity on streets with similar geometric characteristics may be affected by the "peak-hour factor", or the degree to which traffic peaks three times a day (morning, lunch and evening). With certain exceptions described below, capacities have been defined for each street on the basis of Table 1.

Certain streets, such as Mooney Boulevard and Main Street have volumes considerably higher than what might be expected from their cross-sectional width. In the case of Mooney, its ratio of peak to daily volume is lower than in the rest of the City; thus its peak hour capacity is not different from other locations, but it carries higher volumes during many other hours of the day. Capacities on these streets have been assigned to reflect observed traffic operation.

Note that Table 1 shows capacities for Service Level "E". Level E is considered to be the ultimate capacity of the street; however ultimate capacity is achieved at "near-grid-lock" conditions, and is considered to be an unacceptable operating condition. (For a complete definition of service levels, see Table 2.) Most cities select Service Level C or D as their design

Table 1
Daily Capacities for Visalia Freeways, Arterials and Collectors

Facility Geometrics	*Level E Capacities*
4 Lane Freeway	80,000
4 Lane Divided Expressway	37,000
6 Lane Divided Arterial	40,000
4 Lane Divided Arterial	27,000
2 Lane Divided Arterial	15,000
4 Lane Undivided Arterial	24,000
2 Lane Undivided Arterial	12,000
3 Lane One-Way Arterial	22,000
2 Lane One-Way Arterial	15,000
4 Lane Divided Collector	20,000
2 Lane Divided Collector	10,000
4 Lane Undivided Collector	18,000
2 Lane Undivided Collector	9,000

criteria. Given that Visalia has indicated a desire to maintain a high level of freedom of mobility, Level C is used in this evaluation as the basis for identifying whether a problem exists. For the purposes of this evaluation, Level C is defined as 80 percent of the capacity at Level E.

Table 3 contains a complete capacity analysis for most of the arterial and collector streets in the City, and thus provide the basis for the capacity evaluation of the existing circulation network. The tables identifies the current geometrics, the facility type, the existing ADT, the existing capacity, the volume/capacity ratio and the service level. Street segments that operate at service levels D or E are noted with an "*".

Table 2
Level of Service Interpretation

Service Level		*Description*	*Volume to Capacity Ratio*
A	FREE FLOW	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. No delays.	0.00 - 0.59
B	STABLE OPERATION	An occasional approach phase is fully utilized. Minimal delays.	0.60 - 0.69
C	STABLE OPERATION	Major approach phase may become fully utilized. Most drivers feel somewhat restricted. Acceptable delays.	0.70 - 0.79
D	APPROACHING UNSTABLE	Drivers may have to wait through more than one red signal indication. Queues develop but dissipate rapidly, without excessive delays. Effective signal coordination becomes difficult.	0.80 - 0.89
E	UNSTABLE	Volumes at or near capacity. Vehicles may wait through several red indications. Long queues form upstream from intersection. Significant delays, and effective signal coordination is virtually impossible.	0.90 - 0.99
F	FORCED FLOW	Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections. Excessive delays, and signal coordination useless.	1.00 and above

Sources:

"Highway Capacity Manual", Highway Research Board, Special Report No. 87, Washington, D.C., 1965

"Interim Materials on Highway Capacity", Transportation Research Board, Circular No. 212, Washington, D.C., January, 1980.

Table 3

VISALIA CIRCULATION ELEMENT
EXISTING VOLUME/CAPACITY ANALYSIS
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	FACILITY TYPE	EXISTING DAILY VOLUME	DAILY CAPACITY W/EXISTING STRIPING	VOLUME/ CAPACITY	SERVICE LEVEL W/EXISTING STRIPING	DAILY CAPACITY W/POTENTIAL STRIPING	VOLUME / POTENTIAL CAPACITY	SERVICE LEVEL
CALDWELL AVE.	ST RD 99/SHIRK RD	1.0	2 LANES	ARTERIAL	3700	12000	0.31	A	12000	0.31	A
	SHIRK RD/AKERS RD	1.0	2 LANES	ARTERIAL	4600	12000	0.38	A	12000	0.38	A
	AKERS RD/DEMAREE RD	1.0	2 LANES W/LT	ARTERIAL	5900	15000	0.39	A	15000	0.39	A
	DEMAREE RD/COUNTY CENTER DR	0.5	2 LANES W/LT	ARTERIAL	10200	15000	0.68	B	15000	0.68	B
	COUNTY CENTER DR/MOONEY	0.5	2 LANES W/LT	ARTERIAL	12700	15000	0.85	D *	15000	0.85	D *
	MOONEY/DOLLNER ST	0.4	2 LANES	ARTERIAL	14100	15000	0.94	E *	15000	0.94	E *
	DOLLNER ST/S COURT ST	0.9	2 LANES W/LT	ARTERIAL	13000	15000	0.87	D *	15000	0.87	D *
	S COURT ST/SANTA FE	0.2	2 LANES W/LT	ARTERIAL	9100	15000	0.61	B	15000	0.61	B
	SANTA FE/BURKE ST	0.3	2 LANES	ARTERIAL	7000	12000	0.58	A	12000	0.58	A
	BURKE ST/LOVERS LANE	1.2	2 LANES	ARTERIAL	7000	12000	0.58	A	12000	0.58	A
WHITENDALE AVE.	LINWOOD AVENUE/DEMAREE RD	0.5	2 LANES W/LT	COLLECTOR	2800	10000	0.28	A	20000	0.14	A
	DEMAREE RD/COUNTY CENTER DR	0.5	2 LANES W/LT	COLLECTOR	6100	10000	0.61	B	20000	0.31	A
	COUNTY CENTER DR/MOONEY	0.5	2 LANES W/LT	COLLECTOR	8600	10000	0.86	D *	20000	0.43	A
	MOONEY/S GIDDINGS AVE	0.5	2 LANES W/LT	COLLECTOR	9300	10000	0.93	E *	20000	0.47	A
	S GIDDINGS AVE/S COURT ST	0.8	2 LANES W/LT	COLLECTOR	5000	10000	0.50	A	20000	0.25	A
WALNUT AVE.	AKERS/DEMAREE RD	1.0	4 LANES W/LT	ARTERIAL	6600	27000	0.24	A	27000	0.24	A
	DEMAREE RD/COUNTY CENTER DR	0.5	4 LANES W/LT	ARTERIAL	10500	27000	0.34	A	27000	0.39	A
	COUNTY CENTER DR/MOONEY	0.5	4 LANES W/LT	ARTERIAL	12200	27000	0.45	A	27000	0.45	A
	MOONEY/S GIDDINGS AVE	0.5	4 LANES W/LT	ARTERIAL	13600	27000	0.50	A	27000	0.50	A
	S GIDDINGS AVE/S COURT ST	0.8	4 LANES W/LT	ARTERIAL	11300	27000	0.42	A	27000	0.42	A
	S COURT ST/SANTA FE AVE	0.3	4 LANES	ARTERIAL	8600	24000	0.36	A	24000	0.36	A
	SANTA FE AVE/PINKHAM	1.0	4 LANES	ARTERIAL	6300	24000	0.26	A	24000	0.26	A
	PINKHAM/LOVERS LANE	0.5	2 LANES	ARTERIAL	4200	12000	0.35	A	12000	0.35	A
TULARE AVE.	AKERS/DEMAREE ROAD	1.0	2 LANES W/LT	COLLECTOR	3200	10000	0.32	A	10000	0.32	A
	DEMAREE ROAD/WOODLAND DR	0.8	2 LANES W/LT	COLLECTOR	7300	10000	0.73	C	10000	0.73	C
	WOODLAND DR/MOONEY	0.2	2 LANES W/LT	COLLECTOR	9100	10000	0.91	E *	10000	0.91	E *
	MOONEY/S GIDDEINGS AVE	0.5	2 LANES W/LT	COLLECTOR	10900	10000	1.09	F *	10000	1.09	F *
	S GIDDINGS AVE/S COURT ST	0.5	2 LANES W/LT	COLLECTOR	11800	10000	1.18	F *	10000	1.18	F *
	S COURT ST/BEN MADDOX WAY	1.0	2 LANES	COLLECTOR	8100	9000	0.90	E *	9000	0.90	E *
	BEN MADDOX WAY/LOVERS LANE	0.5	2 LANES	COLLECTOR	2900	9000	0.32	A	9000	0.32	A

Table 3

VISALIA CIRCULATION ELEMENT
EXISTING VOLUME/CAPACITY ANALYSIS
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	FACILITY TYPE	EXISTING DAILY VOLUME	DAILY CAPACITY W/EXISTING STRIPING	VOLUME/ CAPACITY	SERVICE LEVEL W/EXISTING STRIPING	DAILY CAPACITY W/POTENTIAL STRIPING	VOLUME / POTENTIAL CAPACITY	SERVICE LEVEL
STATE ROAD 198	ST RT 99/PLAZA	0.8	4 LANES	FREEWAY	17000	80000	0.21	A	80000	0.21	A
	PLAZA/SHIRK RD	1.5	4 LANES	EXPRESSWAY	22000	50000	0.44	A	50000	0.44	A
	SHIRK RD/AKERS RD	0.9	4 LANES	DIVIDED ARTERIAL	20800	32000	0.65	B	32000	0.65	B
	AKERS RD/COUNTY CENTER	1.2	4 LANES	DIVIDED ARTERIAL	29500	32000	0.92	E *	32000	0.92	E *
	COUNTY CTR/MOONEY	0.8	4 LANES	FREEWAY	29500	80000	0.37	A	80000	0.37	A
	MOONEY/SANTA FE AVE	2.0	4 LANES	FREEWAY	27500	80000	0.34	A	80000	0.34	A
	SANTA FE/LOVERS LANE	3.0	4 LANES	FREEWAY	15900	80000	0.20	A	80000	0.20	A
ACEQUIA	CONYER/WEST	0.2	2 LANES	ONE-WAY ARTERIAL	2100	15000	0.14	A	22000	0.10	A
	WEST/COURT	0.3	3 LANES	ONE-WAY ARTERIAL	3000	22000	0.14	A	22000	0.14	A
	COURT/BRIDGE	0.2	3 LANES	ONE-WAY ARTERIAL	3600	22000	0.16	A	22000	0.16	A
	BRIDGE/EDISON	0.5	2 LANES	COLLECTOR	2600	10000	0.26	A	10000	0.26	A
MAIN STREET	COUNTY CENTER AVE/RANCH RD	0.3	2 LANES	ARTERIAL	10300	12000	0.86	D *	12000	0.86	D *
	RANCH RD/MOONEY	0.4	2 LANES	ARTERIAL	9400	12000	0.78	C	12000	0.78	C
	MOONEY/GIDDINGS AVE	0.5	4 LANES	ARTERIAL	17700	24000	0.74	C	24000	0.74	C
	GIDDINGS AVE/WEST	0.7	2 LANES	ARTERIAL	8900	12000	0.74	C	12000	0.74	C
	WEST/N COURT ST	0.3	2 LANES	ONE-WAY COLLECTOR	5900	10000	0.59	A	10000	0.59	A
	N COURT ST/GARDEN	0.1	2 LANES	ONE-WAY COLLECTOR	5000	10000	0.50	A	10000	0.50	A
	GARDEN/BEN MADDOX WAY	0.8	2 LANES	ARTERIAL	6100	12000	0.51	A	12000	0.51	A
	BEN MADDOX WAY/MINERAL KING	1.0	2 LANES	ARTERIAL	6900	12000	0.58	A	24000	0.29	A
CENTER STREET	BEN MADDOX/BRIDGE	0.5	2 LANES	COLLECTOR	4900	12000	0.41	A	12000	0.41	A
	BRIDGE/COURT STREET	0.2	3 LANES	ONE-WAY ARTERIAL	6200	22000	0.28	A	22000	0.28	A
	COURT STREET/WEST	0.2	3 LANES	ONE-WAY ARTERIAL	8100	22000	0.37	A	22000	0.37	A
	WEST/HALL	0.5	2 LANES	ONE-WAY ARTERIAL	6000	15000	0.40	A	15000	0.40	A
GOSHEN AVENUE	ST RD 99/PLAZA	1.4	2 LANES	ARTERIAL	6000	12000	0.50	A	12000	0.50	A
	PLAZA/SHIRK	1.5	2 LANES	ARTERIAL	6500	12000	0.54	A	12000	0.54	A
	SHIRK RD/AKERS RD	1.0	2 LANES	ARTERIAL	8000	12000	0.67	B	12000	0.67	B
	AKERS RD/DEMAREE RD	1.0	2 LANES	ARTERIAL	8500	12000	0.71	C	27000	0.31	A
	DEMAREE RD/N GIDDINGS AVE	1.5	2 LANES	ARTERIAL	9000	12000	0.75	C	12000	0.75	C
MURRAY AVENUE	N GIDDINGS AVE/N COURT ST	0.7	2 LANES	COLLECTOR	8300	10000	0.83	D *	10000	0.83	D *
	N COURT ST/SANTA FE AVE	0.3	2 LANES	COLLECTOR	6600	9000	0.73	C	9000	0.73	C
GOSHEN AVENUE	SANTA FE AVE/LOVERS LANE	1.5	2 LANES	COLLECTOR	2800	9000	0.31	A	9000	0.31	A

Table 3

VISALIA CIRCULATION ELEMENT
EXISTING VOLUME/CAPACITY ANALYSIS
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	FACILITY TYPE	EXISTING DAILY VOLUME	DAILY CAPACITY W/EXISTING STRIPING	VOLUME/ CAPACITY	SERVICE LEVEL W/EXISTING STRIPING	DAILY CAPACITY W/POTENTIAL STRIPING	VOLUME / POTENTIAL CAPACITY	SERVICE LEVEL
STATE ROAD 216/	DEMAREE/MOONEY BLVD	1.0	2 LANES	ARTERIAL	4100	12000	0.34	A	12000	0.34	A
HOUSTON AVE.	MOONEY BLVD/N GIDDINGS AVE	0.5	2 LANES	ARTERIAL	7300	12000	0.61	B	12000	0.61	B
	N GIDDINGS AVE/DINUBA	0.5	2 LANES	ARTERIAL	10700	15000	0.71	C	15000	0.71	C
	DINUBA/SANTA FE AVE	0.5	2 LANES	ARTERIAL	9100	12000	0.76	C	12000	0.76	C
	SANTA FE AVE/BEN MADDOX WAY	0.6	2 LANES W/LT	ARTERIAL	6700	15000	0.45	A	15000	0.45	A
	BEN MADDOX WAY/CAIN ST	0.3	2 LANES W/LT	ARTERIAL	6700	15000	0.45	A	15000	0.45	A
	CAIN ST/LOVERS LANE	0.9	2 LANES W/LT	ARTERIAL	5800	15000	0.39	A	15000	0.39	A
RIGGIN AVENUE	ALTA/SHIRK RD	1.5	2 LANES	ARTERIAL	700	12000	0.06	A	12000	0.06	A
	SHIRK RD/AKERS RAD	1.0	2 LANES	ARTERIAL	1100	12000	0.09	A	12000	0.09	A
	AKERS RD/LINWOOD AVE	0.5	2 LANES	ARTERIAL	1100	12000	0.09	A	12000	0.09	A
	LINWOOD AVE/DEMAREE RD	0.5	2 LANES	ARTERIAL	1700	12000	0.14	A	12000	0.14	A
	DEMAREE RD/MAIN ST	2.0	2 LANES	ARTERIAL	2300	12000	0.19	A	12000	0.19	A
[illegible]	STATE ROAD 198/RIGGIN AVE	2.0	2 LANES	ARTERIAL	5100	12000	0.43	A	12000	0.43	A
SHIRK ROAD	ST RD 198/GOSHEN	1.0	2 LANES	ARTERIAL	1900	12000	0.16	A	12000	0.16	A
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	3500	12000	0.29	A	12000	0.29	A
AKERS ROAD	CALDWELL/WALNUT	1.0	2 LANES	ARTERIAL	3000	12000	0.25	A	12000	0.25	A
	WALNUT AVE/W TULARE AVE	0.5	4 LANES	DIVIDED ARTERIAL	5400	27000	0.20	A	27000	0.20	A
	W TULARE AVE/ST RD 198	0.5	4 LANES	DIVIDED ARTERIAL	6800	27000	0.24	A	27000	0.24	A
	ST RD 198/GOSHEN	1.0	2 LANES	ARTERIAL	5000	12000	0.42	A	27000	0.19	A
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	1100	12000	0.09	A	27000	0.04	A
DEMAREE ROAD	CALDWELL AVE/WHITENDALE AVE	0.5	4 LANES	ARTERIAL	10000	27000	0.37	A	27000	0.37	A
	WHITENDALE AVE/WALNUT AVE	0.5	4 LANES	ARTERIAL	11900	27000	0.44	A	27000	0.44	A
	WALNUT AVE/W TULARE AVE	0.5	4 LANES	ARTERIAL	12200	27000	0.45	A	27000	0.45	A
	W TULRE AVE/ST RD 198	0.5	4 LANES	ARTERIAL	15300	27000	0.57	A	27000	0.57	A
	ST RD 198/MILL CREEK DR	0.4	4 LANES	ARTERIAL	8800	27000	0.33	A	27000	0.33	A
	MILL CREEK DR/GOSHEN AVE	0.4	4 LANES	ARTERIAL	8400	27000	0.31	A	27000	0.31	A
	GOSHEN AVE/HOUSTON AVE	0.2	2 LANES	ARTERIAL	6200	12000	0.52	A	12000	0.52	A
	HOUSTON AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	2600	12000	0.22	A	12000	0.22	A

Table 3

VISALIA CIRCULATION ELEMENT
EXISTING VOLUME/CAPACITY ANALYSIS
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	FACILITY TYPE	EXISTING DAILY VOLUME	DAILY CAPACITY W/EXISTING STRIPING	VOLUME/ CAPACITY	SERVICE LEVEL W/EXISTING STRIPING	DAILY CAPACITY W/POTENTIAL STRIPING	VOLUME / POTENTIAL CAPACITY	SERVICE LEVEL
COUNTY CENTER DR	CALDWELL AVE/WHITENDALE AVE	0.5	2 LANES W/MED	COLLECTOR	5500	15000	0.37	A	20000	0.28	A
	WHITENDALE3 AVE/WALNUT AVE	0.5	2 LANES W/MED	COLLECTOR	9300	15000	0.55	A	20000	0.42	A
	WALNUT SVE/W TULARE AVE	0.5	2 LANES W/MED	COLLECTOR	8600	15000	0.57	A	20000	0.43	A
	W TULARE AVE/CAMPUS DR	0.3	2 LANES W/MED	COLLECTOR	8900	15000	0.59	A	20000	0.45	A
	CAMPUS DR/SR 198	0.2	4 LANES	COLLECTOR	10400	20000	0.52	A	20000	0.52	A
MOONEY	LIBERTY AVE/CALDWELL AVE	1.0	4 LANES	ARTERIAL	14800	37000	0.40	A	37000	0.40	A
	CALDWELL AVE/WHITENDALE AVE	0.5	4 LANES W/MED	DIVIDED ARTERIAL	15000	37000	0.41	A	40000	0.38	A
	WHITENDALE AVE/WALNUT AVE	0.5	4 LANES W/MED	DIVIDED ARTERIAL	28000	37000	0.76	C	40000	0.65	B
	WALNUT AVE/W TULARE AVE	0.5	4 LANES W/MED	DIVIDED ARTERIAL	31000	27000	0.84	D *	40000	0.78	C
	W TULARE AVE/ST RD 198	0.6	4 LANES W/MED	DIVIDED ARTERIAL	28000	37000	0.76	C	40000	0.70	C
	ST RD 198/MAIN ST	0.2	4 LANES W/MED	DIVIDED ARTERIAL	15000	37000	0.41	A	40000	0.38	A
LOCUST STREET	TULARE AVE/NOBLE	0.4	2 LANES	ONE-WAY ARTERIAL	6300	15000	0.42	A	15000	0.42	A
	NOBLE/OAK ST	0.4	3 LANES	ONE-WAY ARTERIAL	7400	22500	0.33	A	22500	0.33	A
	OAK ST/NW SECOND ST	0.2	2 LANES	ONE-WAY ARTERIAL	7000	15000	0.47	A	15000	0.47	A
COURT STREET	CALDWELL AVE/WHITENDALE AVE	0.5	2 LANES W/MED	ARTERIAL	8100	15000	0.54	A	20000	0.41	A
	WHITENDALE AVE/WALNUT AVE	0.5	2 LANES W/MED	ARTERIAL	9900	15000	0.66	B	20000	0.50	A
	WALNUT AVE/W TULARE AVE	0.5	2 LANES	ARTERIAL	12000	15000	0.80	D	15000	0.80	C
	W TULARE AVE/ST RD 198	0.5	2 LANES	ONE-WAY ARTERIAL	7000	15000	0.47	A	15000	0.47	A
	ST RD 198/CENTER	0.3	3 LANES	ONE-WAY ARTERIAL	11400	22500	0.51	A	22500	0.51	A
	CENTER/NE THIRD	0.4	2 LANES	ONE-WAY ARTERIAL	7900	15000	0.53	A	22500	0.35	A
NW SECOND ST.	LOCUST ST/HOUSTON AVE	0.4	2 LANES	ONE-WAY ARTERIAL	4800	15000	0.32	A	15000	0.32	A
NW THIRD ST.	COURT ST/HOUSTON ST	0.4	2 LANES	ONE-WAY ARTERIAL	4800	15000	0.32	A	15000	0.32	A
NE THIRD ST.	COURT ST/HOUSTON ST	0.4	2 LANES	ONE-WAY ARTERIAL	3700	12000	0.31	A	12000	0.31	A
BEN MADDOX WAY	ST RT 198/GOSHEN AVE	0.5	4 LANES W/LT	ARTERIAL	16800	27000	0.62	B	27000	0.62	B
	GOSHEN AVE/HOUSTON AVE	0.5	4 LANES W/LT	ARTERIAL	13800	27000	0.51	A	27000	0.51	A
LOVERS LANE	CALDWELL AVE/WALNUT AVE	1.0	4 LANES	DIVIDED ARTERIAL	9200	27000	0.34	A	27000	0.34	A
	WALNUT AVE/ST RD 198	1.0	4 LANES	DIVIDED ARTERIAL	13100	27000	0.49	A	27000	0.49	A
	ST RD 198/MILL CREEK	0.5	4 LANES	ARTERIAL	10500	27000	0.39	A	27000	0.39	A
	MILL CREEK/HOUSTON AVE	0.5	4 LANES	DIVIDED ARTERIAL	9000	27000	0.33	A	27000	0.33	A

Table 3 contains a column titled "Daily Capacity with Potential Striping". Several of Visalia's collector streets are striped with a wide median, bike lanes on each side, and one lane for traffic in each direction. This striping was developed as an interim measure to make the best use of the existing pavement. However, should traffic demand increase to the point where more capacity is needed, the streets could be restriped for two moving lanes in each direction plus median. The "Potential Capacity" column is intended to reflect this additional reserve capacity. Streets where additional capacity is possible through restriping include:

- Goshen Avenue between Akers and Chinowth
- Houston Avenue between Ben Maddox Way and Lover's Lane
- Main Street between Mineral King Avenue and Ben Maddox Way
- Mineral King Avenue between Main Street and Cain Street
- Tulare Avenue between Mooney Boulevard and the western City Limits
- Whitendale Avenue between Linwood Avenue and West Street
- Caldwell Avenue between Linwood Avenue and Mooney Boulevard
- Akers Road between Goshen Avenue and Hillsdale Drive
- County Center Road between Campus Drive and Caldwell Avenue
- Court Street between Walnut Avenue and Caldwell Avenue
- Lover's Lane north of Houston Avenue
- Mooney Boulevard between Main Street and Caldwell Avenue (stripe curb lane)
- Mill Creek Drive between Main Street and Demaree Road

Results of Capacity Evaluation

The major conclusion to be drawn from Table 3 is that for the most part, there is more than adequate capacity in Visalia's existing circulation system for existing levels of development. The pattern of arterial streets at mile intervals and collector streets at half-mile intervals provides a solid foundation for meeting the traffic capacity needs of the community.

Within the framework of the overall positive situation, Table 3 illustrates that there are two major capacity problems in Visalia and several smaller concerns. The major problems are Highway 198 from County Center Road to Akers Road, and Mooney Boulevard south of 198. Highway 198 operates near capacity in the evening peak hour and has significant periods of delay at other times. Mooney Boulevard carries significant volumes of traffic throughout the day, and is particularly difficult on the weekends. The table also shows that the collectors and arterials crossing Mooney are problem areas which indicate the Mooney Boulevard problem as much as the crossing-streets' problems.

Among the smaller problems are:

- Tulare Avenue in the vicinity of Santa Fe Avenue: An offset intersection and four-way stop sign combine with traffic volumes to create congestion.

- Caldwell Avenue: the existing two-lane plus median striping limits the effective use of this facility. Revised striping plus widening to the ultimate cross-section would improve flow on Caldwell.

- Murray Avenue: this street through an older section of town is relatively narrow for its demand. The street is an extension of Goshen Avenue which operates as an arterial street, regardless of its definition as a collector east of Demaree. Murray receives the traffic moving east from Goshen; it also serves as a relief for part of the north-to- south movement trying to access Mooney Boulevard to the south.

Connectivity Evaluation of Visalia's Circulation System

Visalia's circulation system has for the most part developed around a grid system in which arterial streets are spaced approximately every mile and collector streets are spaced every half-mile. As the capacity evaluation shows, this pattern appears to be providing a solid foundation for serving the community's mobility needs. The connectivity evaluation which follows suggests that problems arise, or may arise, when this pattern is not followed.

There are several "missing links" in the street pattern that currently contribute to **connectivity** problems; some will contribute to **capacity** problems in the future. These links include:

- **An arterial connection of Mooney Boulevard between Main Street and Goshen Avenue.** A country club and high-income residential neighborhood occupy the place where this link would logically have occurred. As a result, north-to-south traffic currently uses a number of local and collector streets in place of the "missing link" Fairway,Divisadero, Hall and Giddings all serve in part to replace this connection. In the future, Demaree Road will also serve to supplement this north-south demand.

- **A north-south collector from Whitendale to Caldwell between West Street and Mooney Boulevard.** At different times, Giddings Avenue has been proposed to be extended through this area. The missing link and the congestion on Mooney Boulevard has resulted in the use of Martin, Dorothea and Fairway Avenues - all local streets - as a short-cut. If a new commercial strip is created on the south side of Caldwell Avenue east of Mooney Boulevard, this lack of a connection will place added stress on West, Mooney, and the above residential streets.

  During the course of development of this Circulation Element, the Planning Commission and City Council reaffirmed the 1976 Circulation Element's decision to terminate Giddings Avenue at Whitendale Avenue. The Planning Commission directs that this reaffirmation should be incorporated in the final Circulation Element.

- **Santa Fe Avenue Bridge over 198**. Santa Fe is an under-utilized resource in the City. The lack of a bridge is one of the reasons for this. Alternatives to this new bridge might be to reinforce the importance of the Bridge Street bridge by creating a connection between Bridge Street and Santa Fe Avenue.

- **Whitendale between Court Street and Santa Fe Avenue.** The absence of the half-mile connector (Whitendale) between Walnut and Caldwell means that Santa Fe Avenue between Walnut and Caldwell can be useful only to through traffic and to eventual development to the east. Santa Fe is a natural alternative to Court Street in this area, but it is limited by access connections to the west.

- **Ferguson between Demaree and Ben Maddox**. An east-west collector has not been designated between Riggin Avenue and Houston Avenue. While current development levels do not require a collector, the eventual expansion of Visalia to the north suggest that such a designation would be of value in the future.

Other connectivity issues include:

- **Goshen Avenue / Mill Creek Parkway connection in the vicinity of Lover's Lane.** The Northeast plan departed from the more traditional half-mile arterial-collector spacing concept in this location. As a result, there will eventually be two closely spaced signals on Lover's Lane at Goshen Avenue and at Mill Creek Parkway. Traffic congestion can be expected as a result. A proposed revision to the Northeast Area Plan to realign Goshen Avenue is expected to alleviate this problem.

- **Treatment of Main Street, Center Street and Acequia Street in central Visalia.** As growth proceeds in downtown Visalia, the use of Main Street a two-way arterial west of Willis and a one- way arterial east of Willis may no longer be optimum. The section on alternative solutions discusses a concept for this area.

- **Treatment of Plaza Drive at 198.** The existing interchange at this location represents a valuable access point to the City. The current presence of Plaza Park and the alignment of Plaza Drive do not encourage the use of the Walnut Avenue extension. In addition, the alignment of the extension where it curves into Plaza Drive has developed an accident history. If a decision is made to relocate the park, it would be of value to reconsider the alignment of Plaza Drive in this area.

PUBLIC TRANSIT IN VISALIA

The City of Visalia has had a commitment to public transit since 1981 when it inaugurated the City's first transit system. The original system

used five vehicles exclusively in dial-a-ride service. However, the demand for service quickly exceeded the supply, and the City has more recently been moving away from dial-a-ride and toward fixed route service.

In January, 1987, Visalia City Coach underwent a major restructuring of its service. It expanded its service hours to include commute hours and revised its fixed route service to encompass four routes operating at 30 to 60 minute frequencies. Figure 1 illustrates the current routing plan. Timed transfers among the routes are made downtown, at the Civic Center, and along Mooney Boulevard. Dial-a-Ride service remains available City-wide; it operates on a subscription basis in the commute hours and in a demand-response mode during the mid-day. In order to balance its investment, the Visalia City Coach has adopted a policy of encouraging the use of the fixed route service.

As shown by Table 4, transit ridership has increased significantly since the inception of service in 1980/81. During the past four years ridership has increased an average of more that 30% per year.

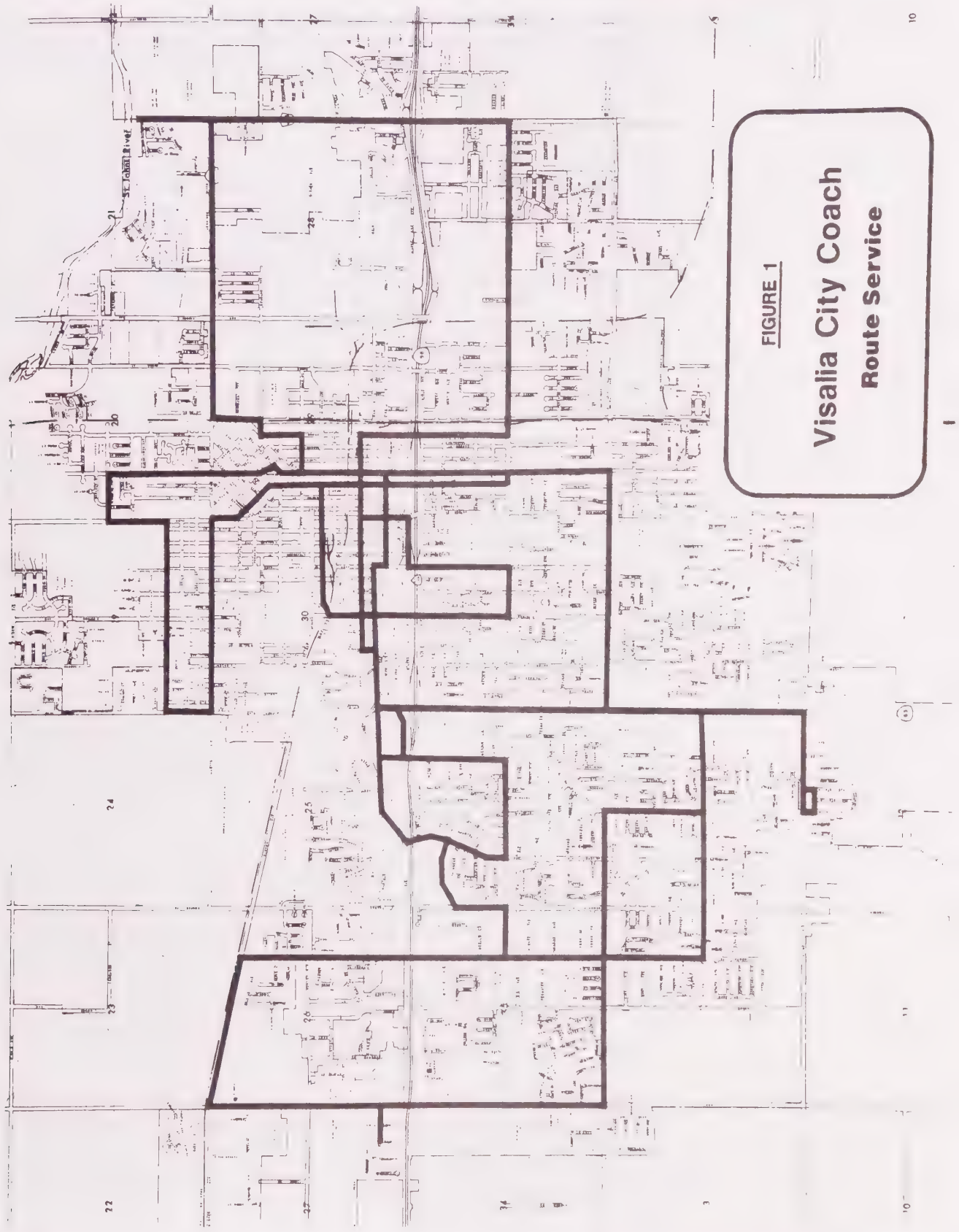
Table 4
Annual Transit Patronage in Visalia

Year	*Dial-a-Ride*	*Fixed Route*	*Total*	*% Change*
1980/81	23,655		23,655	
1981/82	83,192		83,192	+351%
1982/83	66,374	14,808	81,182	- 3%
1983/84	44,717	23,049	67,766	- 17%
1984/85	62,447	27,603	90,050	+ 33%
1985/86	81,716	33,642	115,358	+ 28%
1986/87	71,486	74,522	146,008	+ 27%
1987/88	57,091	145,230	202,321	+ 39%

Source: Visalia City Coach 1988 Transit Plan City of Visalia
1988 UMTA Section 15 Report

Visalia City Coach currently has a fleet of 15 vehicles devoted to the two services. Operations are managed by the Transit Division of the City Engineering Department, which contracts with a private firm for the actual operation. The Visalia City Council is the policymaking body for the system. A Transit Advisory Committee composed of citizens appointed by the Council is responsible for overseeing and evaluating the service and making recommendations for changes to the City Council.

The County of Tulare operates the Tulare County Transit System which provides limited schedules into Visalia two days per week. Service is scheduled to provide for shopping, medical and social service trips. The routes provide service from Three Rivers, Woodlake, Ivanhoe, Exeter and Farmersville into Visalia.


FIGURE 1
Visalia City Coach
Route Service



Under a contract with Greyhound and Orange Belt, a user-side subsidy program is provided on regular scheduled service. This service operates between the SH 99 corridor and Visalia and Porterville and Visalia.

Service times and schedules are coordinated between Visalia City Coach and these county programs. Visalia City Coach serves the downtown bus depot and Tulare County Transit stops at this location, as well as all Greyhound and Orange Belt service.

OTHER TRANSPORTATION MODES IN VISALIA

Railroads

Visalia is served by two railroads which provide freight service to the community. The Southern Pacific Company operates lines parallel to SR 99 with a branch running east and south along Goshen Avenue, Ben Maddox and K Road. The Atchison, Topeka and Santa Fe Railroad passes through Visalia along Santa Fe Avenue. At the time that this document was prepared, the Interstate Commerce Commission had invalidated a proposed merger between these two rail operators. There had been some speculation on the possible abandonment of some of these lines if a merger had occurred, but this is no longer likely. Any abandonments would have been likely to occur outside the present City Limits of Visalia.

In addition to providing freight service to industries located within the City, the presence of the railroads presents a restriction on how the street and highway system can be developed. Currently, the State Public Utilities Commission is restricting the number of new grade crossings that it will permit; the railroads themselves are also interested in minimizing the number of grade crossings. Current policy is that if a new crossing is desired, another existing crossing must be closed. This policy will restrict the number of crossings between Goshen Avenue and the area to the north which is likely to be the next area of residential growth in the City.

Passenger rail service via AMTRAK are provided throughout the Central Valley on the AT&SF tracks which pass through Hanford in Kings County. AMTRAK service to Visalia is provided by a connecting bus which makes two round trips per day, one from Hanford to Visalia and one connecting cities as far east as Porterville. In 1986, 4743 people used the AMTRAK bus to and from Visalia.

For a number of years, there has been interest in Tulare County in receiving AMTRAK service directly via the SP track that parallels Route 99. At the time that this plan was prepared, a nine-county committee known as the San Joaquin Railway Task Force had been formed to investigate questions related to passenger rail service in the valley. Among the items of interest were direct service from the Valley to San Jose and Sacramento as well as providing service through the Valley

along the SP alignment. The committee had only been formed as this plan was being prepared, and thus has not developed any recommendations or action plans. Tulare County is a member of this committee, and Visalia should expect to further its desires for direct service to the City through this committee.

Air Services

Visalia Municipal Airport is the largest and most active air field in Tulare County, and the only one with regularly scheduled passenger service. Its location at the intersection of State Routes 99 and 198 provide it with excellent regional access. SR 198 and Walnut Avenue provide direct access to the airport from the City.

The airport served some 70,000 annual aircraft operations in 1987, and indications are that the amount of commercial aircraft activity is increasing; the Visalia Municipal Airport Master Plan forecasts 190,000 operations in the year 2007. Approximately 13,000 passenger emplanements were recorded in 1987, forecast to reach 70,000 in 2007. The Master Plan calls for the construction of a parallel runway within five years.

Also occurring at this time of preparation of this report was a study to determine the feasibility of an intermodal transportation terminal in the vicinity of the airport. The terminal as currently conceived would serve air passengers, inter-city bus, local bus, and AMTRAK bus. Should rail service be extended along the Southern Pacific tracks parallel to Route 99, the intermodal would serve rail passengers as well. The feasibility study is expected to be completed before final publication of this document, and appropriate text will be added here when details of the intermodal study become available.

Bicycles

Historically, bicycles have been a minor mode of travel in the City. There has been interest in the mode by a number of people, but the overall interest has been rather low. The City has striped bicycle lanes on a number of its streets, primarily in areas where sufficient pavement is available and not needed for automobile use. Lanes are currently striped on:

- Linwood Avenue between Cypress Street and Victor Avenue
- County Center Road between Campus Drive and Caldwell Avenue
- Giddings Avenue between Iris Avenue and Whitendale Avenue
- Jacob Street between Houston Avenue and Main Street
- Conyer Street between Main Street and Tulare Avenue
- Locust Street between Olive Street and Tulare Avenue
- Court Street between Noble Avenue and Tulare Avenue
- Court Street between Walnut Avenue and Green Oaks Drive
- Whitendale Avenue between Linwood Avenue and West Street
- Tulare Avenue between Linwood Avenue and Woodland Drive
- Tulare Avenue between Central Avenue and Locust Street
- Mill Creek Drive between Demaree Road and Main Street.



While formal studies of these bicycle lanes was not made as part of this study, informal observations showed some use particularly in the afternoon hours and in the vicinity of schools and recreation areas.

In 1982, the City established a Citizen's Bicycle Committee which developed a bicycle plan for the City. That plan was not approved, and the City is currently without an adopted plan or policy for bicycles. The current level of bicycle usage suggests that the City may wish to restudy the need for an official bicycle plan.

Trucks and Goods Movement

Section 3012 of the Municipal Code has designated certain streets within the City as Truck Routes. These are streets which allow for through truck movements. Trucks may use all other streets for access to particular destinations, with the exception of certain other streets from which they are expressly prohibited.

The following streets have been designated as truck routes:

1. Mooney Boulevard between the southerly City limits and Highway 198.
2. Locust Street between Noble Avenue and Northwest Second
3. Northwest Second between Locust Street and West Street.
4. West Street between Northwest Second and Houston Avenue.
5. Court Street between Noble Avenue and Northwest Third.
6. Northwest Third between Court Street and West Street.
7. Dinuba Boulevard between Houston Avenue and the north City limits.
8. Northeast Third between Court Street and Houston Avenue.
9. Ben Maddox Way between Walnut Avenue and the north City limit.
10. All of Lover's Lane within the City limits.
11. Plaza Drive between Highway 198 and Goshen Avenue.
12. All of Caldwell Avenue within the City limits.
13. All of Highway 198 within the City Limits.
14. All of Goshen Avenue within the City Limits between Highway 99 and Shirk Road.
15. Houston Avenue between Santa Fe Street and the easterly City Limit.

For the most part, these streets provide adequate routes for through truck movements within the current City limits. There are isolated locations of industry within the city that are not near a truck route; however, since access to these locations is not restricted, these industries are not limited in their operation.

Visalia has also passed ordinances which prohibit commercial vehicles exceeding a gross weight of 14,000 pounds from using the following streets:

1. Demaree Road between Caldwell and Goshen.
2. Tulare Avenue between Akers Road and Woodland St.
3. Tulare Avenue between Central Street and Locust Street

4. Campus Avenue between Demaree St. and Woodland St.
5. Burrel Avenue between Mooney Blvd. and Central St.
6. Prospect Avenue between Mooney Blvd. and Conyer St.
7. Ferguson Avenue between Dinuba Blvd. and Bridge St.
8. Linwood Street between Caldwell Avenue and State Highway 198.
9. Chinowth Road between Whitendale Avenue and Highway 198.
10. County Center Drive between Caldwell Avenue and State Highway 198.
11. Woodland Street between Walnut Avenue and West Main Street.
12. Sallee St. between Beech Avenue and Walnut Avenue.
13. Mooney Blvd. between Goshen Avenue and Riggin Avenue.
14. Central Street between Mineral King Avenue and Burrell Avenue.
15. Giddings St. between Whitendale Avenue and Murray Avenue.
16. All of Giddings St. in the City limits between Houston Avenue and Riggin Avenue.
17. Conyer St. between Walnut Avenue and School Avenue.
18. Court Street between Caldwell Avenue and Tulare Avenue.
19. Court St. between Houston Avenue and Sunnyview Avenue.
20. Burke St. between Paradise Avenue and Noble Avenue.



PROJECTION OF TRANSPORTATION CONDITIONS IN 2010

This circulation element is being planned for the horizon year of 2010. While the direction and pace that the City of Visalia will grow between the present time and 2010 can never be absolutely clear, it is useful to make an estimate of population and employment growth to the horizon year. Such a projection of the future can be used to estimate needs for street and highway facilities, and thus guide the planning and development process. The forecast can also help to establish the program of public improvements that will be needed in the next 23 years.

This chapter of the circulation element describes several possible scenarios for the future development of the City. Population and land use forecasts have been made for these scenarios, and projections of traffic have been made for each. The product of this technical analysis is an identification of Street and Highway needs for the next 23 years.

LAND USE IN 2010

The socio-economic data base for 2010 was developed using the State Department of Finance's projections for population and employment for Tulare County for the years 2000 and 2020. These numbers formed the basis for local discussions between the County of Tulare, the City of Visalia, and TCAG staffs. The three staffs developed modified projections based on existing local plans, County and City population projections and analysis. These projections were within the estimates developed by the Department of Finance.

The population and employment estimates were then assigned to traffic zones based on the known parameters of the Visalia General Plan. Since the General Plan has a horizon year of 1996, the staff assigned population and employment first to the General Plan areas. Infilling and increased densities within the existing urban core was completed before any areas outside the General Plan boundaries received population or employment. Based on discussions with City staff, the remaining data for growth between 1996 and 2010 was assigned to the appropriate areas, with residential development being evenly distributed north, east and south and employment being concentrated in the west. These assignments were based on the best available information on future development patterns. Population and employment control was established on a metropolitan area basis.

In addition to this base-case land use scenario, two other scenarios were developed. One alternative was intended to test the impacts of a regional mall within the City. Recognizing that an ultimate site for such a project

had not been selected at the time that the analysis was conducted,a decision was made to select a site at State Route 198 and Akers Road as representative of the locations and impacts that might be associated with a mall project. The second scenario thus included the base case year 2010 land use plus the mall. The third scenario added to this latter the proposal to add 1,000,000 square feet of commercial and office development along Mooney Boulevard as part of a redevelopment project.

The resulting estimates of population and employment for the City in the year 2010 thus makes the best use of available data, bounded and controlled by the Statewide and Countywide estimates made by the Department of Finance.

DESCRIPTION OF THE TRAVEL FORECASTING PROCESS

To assist in the projection of traffic on the streets and highways of Visalia in the year 2010, the Tulare County Association of Governments has developed a computerized model that estimates traffic on the freeways, arterials and collector streets throughout the County. Most of Visalia's arterials and collectors are included in this model.

The model requires that the County be sub-divided into a number of smaller zones for analytical purposes. The land use in each zone is compiled for the base year (1980), and projected for the target year (2010). For the evaluation of the circulation element, the land use projections from the previous section were used. The model includes a set of trip generation rates which estimates the total number of trips to and from each zone in the County based on the land use in each zone.

Given the total trips to and from each zone, the forecasting model then estimates travel patterns between each zone. The process creates a "trip table" which is a matrix of forecast trips from each zone in the County to all other zones.

The final part of the forecasting process involves assigning all trips in the trip table to a computerized description of the highway network. Tulare County's model assigns all traffic on the basis of the minimum travel time path, meaning that all traffic is assumed to travel via the fastest path. The particular process does not account for traffic congestion that occurs as traffic volumes reach the capacity of a street or freeway; this is known as an all-or-nothing assignment, and is intended to illustrate the optimum demand for all roadways.

This basic procedure was followed for five scenarios:

- 1980 Base Case (Modeled for validation purposes)
- 2010 Base Land Use on 1986 Network



- 2010 Base Case Land Use plus Regional Mall at State Route 198 and Akers on 1986 Network
- 2010 Base Land Use plus Mooney Redevelopment plus Regional Mall at Akers and 198 on 1986 Network
- 2010 Base Land Use plus Mooney Redevelopment plus Regional Mall at Akers and 198 on Improved Network

The "improved" network consists of the major changes to the existing system that are expected to be necessary to serve the City's circulation needs in the future. These improvements are detailed completely in Chapter V.

Because the model is demand-oriented, the consultant found it necessary to make some manual adjustments to the forecasts to reflect the congestion that will occur as volumes approach the capacity of the street. For example, the "improved" network includes the conversion of SR 198 to freeway standards from Route 99 to County Center Road. The assignment produced by the model placed a high volume and resultant high congestion on Caldwell Avenue. The consultant's expectation is that 198 as a freeway will be sufficiently attractive to pull through traffic off of Caldwell in this region. Accordingly, manual adjustments were made in this location and others.

ESTIMATE OF 2010 TRAFFIC ON THE 1986 STREET AND HIGHWAY NETWORK

Table 5 contains the forecasts of traffic for three land use scenarios in Visalia in the year 2010. The table shows the estimated daily traffic, the capacity of the existing network, and the resulting volume/capacity ratio and service level. As with the evaluation of existing conditions, the major conclusion from the analysis is that for the most part, Visalia's existing street system will have sufficient capacity in the year 2010. The difference is that places that are currently problems will be worse in 2010, and a number of new problem areas will occur.

Comparison of the forecasts with and without the regional mall at Akers and 198 show significant differences only in the immediate vicinity of the mall. Much of the traffic to and from the mall is destined for 198 and then destinations outside Visalia. The forecast suggests that Akers Road is the only other arterial that will show significant traffic increases. However, the consultant notes that the mall should have impacts in reducing traffic on Mooney Boulevard which do not show in this forecast.

The forecast with the mall is thus somewhat conservative in the remainder of the City in that it may be slightly over-estimating trips. It should also be noted that the 20,000 ADT generation is a very rough estimate, and the mall may in fact generate more traffic, depending on its ultimate size. For

Table 5

VISALIA CIRCULATION ELEMENT
VOLUME/CAPACITY ANALYSIS FOR THE YEAR 2010 – ALTERNATIVE LAND USES
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	DAILY CAPACITY W/ POTENTIAL STRIPING	2010 BASE CASE LAND USE WITH EXISTING HIGHWAY NETWORK				2010 BASE NETWORK AND LAND USE WITH REGIONAL MALL AT 198 & AKERS				2010 BASE NETWORK AND LAND USE WITH REGIONAL MALL AND MOONEY DEVELOPMENT			
					FORE-CAST ADT	1986-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORE-CAST ADT	1986-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORECAST ADT	1986-201 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV
CALDWELL AVE.	ST RD 99/SHIRK RD	1.0	2 LANES	12000	9800	165%	0.82	D *	11900	222%	0.99	E *	13800	273%	1.15	F *
	SHIRK RD/AKERS RD	1.0	2 LANES	12000	10300	124%	0.86	D *	11200	143%	0.93	E *	13300	189%	1.11	F *
	AKERS RD/DEMAREE RD	1.0	2 LANES W/LT	15000	13600	131%	0.91	E *	14500	148%	0.97	E *	16600	181%	1.11	B
	DEMAREE RD/COUNTY CENTER DR	0.5	2 LANES W/LT	15000	16000	57%	1.07	F *	15900	56%	1.06	F *	18300	79%	1.22	B
	COUNTY CENTER DR/MOONEY	0.5	2 LANES W/LT	15000	24500	93%	1.63	F *	24300	91%	1.62	F *	26800	111%	1.79	E *
	MOONEY/DOLLNER ST	0.4	2 LANES	15000	22400	59%	1.49	F *	22100	57%	1.47	F *	23500	67%	1.57	F *
	DOLLNER ST/S COURT ST	0.9	2 LANES W/LT	15000	22900	76%	1.53	F *	22700	75%	1.51	F *	24000	85%	1.60	F *
	S COURT ST/SANTA FE	0.2	2 LANES W/LT	15000	24300	167%	1.62	F *	24200	166%	1.61	F *	25500	180%	1.70	F *
	SANTA FE/BURKE ST	0.9	2 LANES	12000	15300	119%	1.28	F *	15300	119%	1.28	F *	16300	133%	1.36	F *
	BURKE ST/LOVERS LANE	1.2	2 LANES	12000	14500	107%	1.21	F *	14500	107%	1.21	F *	15500	121%	1.29	F *
WHITENDALE AVE.	LINWOOD AVENUE/DEMAREE RD	0.5	2 LANES W/LT	20000	6600	136%	0.33	A	6500	132%	0.33	A	6700	139%	0.34	A
	DEMAREE RD/COUNTY CENTER DR	0.5	2 LANES W/LT	20000	9400	54%	0.47	A	9300	52%	0.47	A	9800	61%	0.49	A
	COUNTY CENTER DR/MOONEY	0.5	2 LANES W/LT	20000	9600	10%	0.48	A	9400	9%	0.47	A	10000	16%	0.50	A
	MOONEY/S GIDDINGS AVE	0.5	2 LANES W/LT	20000	9500	2%	0.48	A	9400	1%	0.47	A	9600	3%	0.48	A
	S GIDDINGS AVE/S COURT ST	0.8	2 LANES W/LT	20000	5400	8%	0.27	A	5400	8%	0.27	A	5500	10%	0.28	A
WALNUT AVE.	AKERS/DEMAREE RD	1.0	4 LANES W/LT	27000	9700	47%	0.36	A	10700	62%	0.40	A	11100	68%	0.41	A
	DEMAREE RD/COUNTY CENTER DR	0.5	4 LANES W/LT	27000	15800	49%	0.58	A	15500	48%	0.57	A	16800	60%	0.62	B
	COUNTY CENTER DR/MOONEY	0.5	4 LANES W/LT	27000	20800	70%	0.77	C	20400	67%	0.76	C	23000	89%	0.85	D *
	MOONEY/S GIDDINGS AVE	0.5	4 LANES W/LT	27000	19800	46%	0.73	C	19600	44%	0.73	C	20500	51%	0.76	C
	S GIDDINGS AVE/S COURT ST	0.8	4 LANES W/LT	27000	16500	46%	0.61	B	16500	46%	0.61	B	17100	51%	0.63	B
	S COURT ST/SANTA FE AVE	0.3	4 LANES	24000	15100	76%	0.63	B	15100	76%	0.63	B	15800	81%	0.65	B
	SANTA FE AVE/PINKHAM	1.0	4 LANES	24000	15300	143%	0.64	B	15800	148%	0.65	B	15900	152%	0.66	B
	PINKHAM/LOVERS LANE	0.5	2 LANES	12000	14400	243%	1.20	F *	14400	243%	1.20	F *	14500	245%	1.21	F *
TULARE AVE.	AKERS/DEMAREE ROAD	1.0	2 LANES W/LT	10000	6300	97%	0.63	B	6800	113%	0.68	B	7200	125%	0.72	A
	DEMAREE ROAD/WOODLAND DR	0.8	2 LANES W/LT	10000	7600	4%	0.76	C	7500	3%	0.75	C	8100	11%	0.81	A
	WOODLAND DR/MOONEY	0.2	2 LANES W/LT	10000	10500	15%	1.05	F *	10400	14%	1.04	F *	10800	19%	1.08	A
	MOONEY/S GIDDEINGS AVE	0.5	2 LANES W/LT	10000	13100	20%	1.31	F *	13100	20%	1.31	F *	13600	25%	1.36	E *
	S GIDDINGS AVE/S COURT ST	0.5	2 LANES W/LT	10000	13100	11%	1.31	F *	13100	11%	1.31	F *	13200	12%	1.32	E *
	S COURT ST/BEN MADDOX WAY	1.0	2 LANES	9000	8500	5%	0.94	E *	8600	6%	0.96	E *	8700	7%	0.97	C
	BEN MADDOX WAY/LOVERS LANE	0.5	2 LANES	9000	3700	28%	0.41	A	3700	28%	0.41	A	3700	28%	0.41	A

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					2010 BASE CASE LAND USE WITH EXISTING HIGHWAY NETWORK				2010 BASE NETWORK AND LAND USE WITH REGIONAL MALL AT 198 & AKERS				2010 BASE NETWORK AND LAND USE WITH REGIONAL MALL AND MOONEY DEVELOPMENT			
ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	DAILY CAPACITY W/ POTENTIAL STRIPING	FORE-CAST ADT	1988-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORE-CAST ADT	1988-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORECAST ADT	1988-201 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV
STATE ROAD 198	ST RT 99/PLAZA	0.8	4 LANES	80000	36400	108%	0.44	A	41000	141%	0.51	A	45300	166%	0.57	A
	PLAZA/SHIRK RD	1.5	4 LANES	50000	37800	72%	0.76	C	44100	100%	0.88	D *	48200	119%	0.96	E *
	SHIRK RD/AKERS RD	0.9	4 LANES	32000	39500	90%	1.23	F *	49100	136%	1.53	F *	52600	152%	1.64	F *
	AKERS RD/COUNTY CENTER	1.2	4 LANES	32000	51200	74%	1.60	F *	53100	80%	1.66	F *	55700	89%	1.74	F *
	COUNTY CTR/MOONEY	0.8	4 LANES	80000	38600	31%	0.48	A	40100	36%	0.50	A	41600	41%	0.52	A
	MOONEY/SANTA FE AVE	2.0	4 LANES	80000	36100	31%	0.45	A	37100	35%	0.46	A	38600	40%	0.48	A
	SANTA FE/LOVERS LANE	3.0	4 LANES	80000	32100	102%	0.40	A	33000	108%	0.41	A	33600	111%	0.42	A
ACEQUIA	CONYER/WEST	0.2	2 LANES	22000	5500	182%	0.25	A	5400	157%	0.25	A	5400	157%	0.25	A
	WEST/COURT	0.3	3 LANES	22000	6300	110%	0.29	A	6200	107%	0.28	A	6200	107%	0.28	A
	COURT/BRIDGE	0.2	3 LANES	22000	5600	56%	0.25	A	5600	56%	0.25	A	5500	53%	0.25	A
	BRIDGE/EDISON	0.5	2 LANES	10000	5900	127%	0.59	A	5900	127%	0.59	A	5800	115%	0.58	A
MAIN STREET	COUNTY CENTER AVE/RANCH RD	0.3	2 LANES	12000	20800	100%	1.72	F *	21200	106%	1.77	F *	21600	110%	1.80	F *
	RANCH RD/MOONEY	0.4	2 LANES	12000	23000	145%	1.92	F *	23300	148%	1.94	F *	23600	151%	1.97	F *
	MOONEY/GIDDINGS AVE	0.6	4 LANES	24000	18400	4%	0.77	C	18300	3%	0.76	C	18400	4%	0.77	C
	GIDDINGS AVE/WEST	0.7	2 LANES	12000	9500	7%	0.79	C	9400	6%	0.78	C	9400	6%	0.78	C
	WEST/N COURT ST	0.8	2 LANES	10000	6300	7%	0.63	B	6200	5%	0.62	B	6200	5%	0.62	B
	N COURT ST/GARDEN	0.1	2 LANES	10000	5800	12%	0.58	A	5800	12%	0.58	A	5500	10%	0.55	A
	GARDEN/BEN MADDOX WAY	0.6	2 LANES	12000	9700	59%	0.81	D *	9700	59%	0.81	D *	5700	-7%	0.48	A
	BEN MADDOX WAY/MINERAL KING	1.0	2 LANES	24000	13100	90%	0.55	A	12900	87%	0.54	A	12800	86%	0.53	A
CENTER STREET	BEN MADDOX/BRIDGE	0.5	2 LANES	10000	8400	71%	0.84	C	8400	71%	0.84	C	8300	69%	0.83	D *
	BRIDGE/COURT STREET	0.2	3 LANES	22000	11400	84%	0.52	A	11300	82%	0.51	A	11200	81%	0.51	A
	COURT STREET/WEST	0.2	3 LANES	22000	12600	56%	0.57	A	12500	54%	0.57	A	12600	54%	0.57	A
	WEST/HALL	0.5	2 LANES	15000	11900	98%	0.79	C	11800	93%	0.77	C	11800	93%	0.77	C
GOSHEN AVENUE	ST RD 99/PLAZA	1.4	2 LANES	12000	14200	137%	1.18	F *	13700	128%	1.14	F *	13400	123%	1.12	F *
	PLAZA/SHIRK	1.5	2 LANES	12000	13000	100%	1.08	F *	12500	92%	1.04	F *	12400	91%	1.03	F *
	SHIRK RD/AKERS RD	1.0	2 LANES	12000	17200	115%	1.43	F *	17700	121%	1.48	F *	17700	121%	1.48	F *
	AKERS RD/DEMAREE RD	1.0	2 LANES	27000	25400	199%	0.94	E *	25300	198%	0.94	E *	25300	198%	0.94	E *
	DEMAREE RD/N GIDDINGS AVE	1.5	2 LANES	12000	17800	96%	1.48	F *	17400	93%	1.45	F *	17300	92%	1.44	F *
MURRAY AVENUE	N GIDDINGS AVE/N COURT ST	0.7	2 LANES	10000	9900	19%	0.99	E *	9600	16%	0.96	E *	9500	14%	0.95	E *
	N COURT ST/SANTA FE AVE	0.3	2 LANES	9000	7400	12%	0.82	D *	7400	12%	0.82	D *	7500	14%	0.83	D *
GOSHEN AVENUE	SANTA FE AVE/LOVERS LANE	1.5	2 LANES	9000	2900	4%	0.32	A	2900	4%	0.32	A	2900	4%	0.32	A

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					FORE-CAST ADT	1986-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORE-CAST ADT	1986-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORECAST ADT	1986-201 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV
STATE ROAD 216/ HOUSTON AVE.	DEMAREE/MOONEY BLVD	1.0	2 LANES	12000	8600	110%	0.72	C	8700	112%	0.73	C	8700	112%	0.73	C
	MOONEY BLVD/N GIDDINGS AVE	0.5	2 LANES	12000	11200	53%	0.93	E *	11100	52%	0.93	E *	11100	52%	0.93	E *
	N GIDDINGS AVE/DINUBA	0.5	2 LANES	15000	13300	24%	0.89	D *	13100	22%	0.87	D *	13000	21%	0.87	D *
	DINUBA/SANTA FE AVE	0.5	2 LANES	12000	13100	44%	1.09	F *	12900	42%	1.08	F *	12900	42%	1.08	F *
	SANTA FE AVE/BEN MADDOX WAY	0.6	2 LANES W/LT	15000	14000	109%	0.93	E *	13800	108%	0.92	E *	13700	104%	0.91	E *
	BEN MADDOX WAY/CAIN ST	0.3	2 LANES W/LT	15000	14900	122%	0.99	E *	14700	119%	0.98	E *	14700	119%	0.98	A
	CAIN ST/LOVERS LANE	0.9	2 LANES W/LT	15000	13300	129%	0.89	D *	13100	128%	0.87	D *	13100	128%	0.87	A
RIGGIN AVENUE	ALTA/SHIRK RD	1.5	2 LANES	12000	3600	414%	0.30	A	3600	414%	0.30	A	3600	414%	0.30	A
	SHIRK RD/AKERS RAD	1.0	2 LANES	12000	7400	573%	0.62	B	7300	564%	0.61	B	7300	564%	0.61	B
	AKERS RD/LINWOOD AVE	0.5	2 LANES	12000	8900	709%	0.74	C	9000	718%	0.75	C	9000	718%	0.75	C
	LINWOOD AVE/DEMAREE RD	0.5	2 LANES	12000	8100	376%	0.68	B	8100	376%	0.68	B	8100	376%	0.68	B
	DEMAREE RD/DINUBA	2.0	2 LANES	12000	9900	330%	0.83	D *	10100	339%	0.84	D *	10100	339%	0.84	D *
PLAZA	STATE ROAD 198/RIGGIN AVE	2.0	2 LANES	12000	8900	75%	0.74	C	8900	75%	0.74	C	9100	78%	0.76	C
SHIRK ROAD	ST RD 198/GOSHEN	1.0	2 LANES	12000	4700	147%	0.39	A	7600	295%	0.63	B	7700	305%	0.64	B
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	12000	4900	40%	0.41	A	7600	117%	0.63	B	7700	120%	0.64	B
AKERS ROAD	CALDWELL/WALNUT	1.0	2 LANES	12000	5400	80%	0.45	A	7300	143%	0.61	B	7600	153%	0.63	B
	WALNUT AVE/W TULARE AVE	0.5	4 LANES	27000	5700	6%	0.21	A	8300	54%	0.31	A	9000	67%	0.33	A
	W TULARE AVE/ST RD 198	0.5	4 LANES	27000	9800	53%	0.36	A	16300	155%	0.60	B	16400	156%	0.61	B
	ST RD 198/GOSHEN	1.0	2 LANES	27000	13000	160%	0.48	A	18600	272%	0.69	B	18600	272%	0.69	B
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	27000	8400	664%	0.31	A	10500	855%	0.39	A	10600	864%	0.39	A
DEMAREE ROAD	CALDWELL AVE/WHITENDALE AVE	0.5	4 LANES	27000	15000	50%	0.56	A	15000	50%	0.56	A	15400	54%	0.57	A
	WHITENDALE AVE/WALNUT AVE	0.5	4 LANES	27000	15900	34%	0.59	A	16000	34%	0.59	A	16300	37%	0.60	B
	WALNUT AVE/W TULARE AVE	0.5	4 LANES	27000	16100	32%	0.60	A	16300	34%	0.60	B	16500	35%	0.61	B
	W TULRE AVE/ST RD 198	0.5	4 LANES	27000	18100	18%	0.67	B	18200	19%	0.67	B	18500	21%	0.69	B
	ST RD 198/MILL CREEK DR	0.4	4 LANES	27000	30100	242%	1.11	F *	29300	233%	1.09	F *	29700	238%	1.10	F *
	MILL CREEK DR/GOSHEN AVE	0.4	4 LANES	27000	23600	181%	0.87	D *	23200	176%	0.86	D *	23600	181%	0.87	D *
	GOSHEN AVE/HOUSTON AVE	0.2	2 LANES	12000	14700	137%	1.23	F *	15200	145%	1.27	F *	16300	147%	1.28	F *
	HOUSTON AVE/RIGGIN AVE	1.0	2 LANES	12000	7900	204%	0.66	B	8000	208%	0.67	B	8000	208%	0.67	B

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ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	DAILY CAPACITY W/ POTENTIAL STRIPING	FORE-CAST ADT	1986-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORE-CAST ADT	1986-2010 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV	FORECAST ADT	1986-201 GROWTH	VOLUME / POTENTIAL CAPACITY	SERV LEV
COUNTY CENTER DR	CALDWELL AVE/WHITENDALE AVE	0.5	2 LANES W/MED	20000	12900	135%	0.65	B	13000	136%	0.65	B	13600	147%	0.68	B
	WHITENDALE3 AVE/WALNUT AVE	0.5	2 LANES W/MED	20000	13800	64%	0.69	B	13800	66%	0.69	B	14300	72%	0.72	C
	WALNUT SVE/W TULARE AVE	0.5	2 LANES W/MED	20000	11600	35%	0.58	A	11600	35%	0.58	A	12400	44%	0.62	B
	W TULARE AVE/CAMPUS DR	0.3	2 LANES W/MED	20000	11200	26%	0.56	A	11200	26%	0.56	A	11400	28%	0.57	A
	CAMPUS DRVSR 198	0.2	4 LANES	20000	13100	26%	0.66	B	13000	25%	0.65	B	13100	26%	0.66	B
MOONEY	LIBERTY AVE/CALDWELL AVE	1.0	4 LANES	37000	33200	124%	0.90	D *	32600	120%	0.88	D *	37500	153%	1.01	F *
	CALDWELL AVE/WHITENDALE AVE	0.5	4 LANES W/MED	40000	35800	139%	0.90	D *	35200	135%	0.88	D *	40100	167%	1.00	F *
	WHITENDALE AVE/WALNUT AVE	0.5	4 LANES W/MED	40000	39200	51%	0.98	E *	38700	49%	0.97	E *	43800	68%	1.10	F *
	WALNUT AVE/W TULARE AVE	0.5	4 LANES W/MED	40000	40500	31%	1.01	F *	39900	29%	1.00	E *	44400	43%	1.11	F *
	W TULARE AVE/ST RD 198	0.5	4 LANES W/MED	40000	37200	33%	0.93	E *	36800	31%	0.92	E *	41300	48%	1.03	F *
	ST RD 198/MAIN ST	0.2	4 LANES W/MED	40000	21200	41%	0.53	A	21400	43%	0.54	A	22200	48%	0.56	A
LOCUST STREET	TULARE AVE/NOBLE	0.4	2 LANES	15000	9800	78%	0.65	B	9800	78%	0.65	B	9700	78%	0.65	B
	NOBLE/OAK ST	0.4	3 LANES	22000	15200	105%	0.69	B	15000	103%	0.68	B	15000	103%	0.68	B
	OAK ST/NW SECOND ST	0.3	2 LANES	22000	14800	87%	0.67	B	14800	85%	0.66	B	14800	85%	0.66	B
COURT STREET	CALDWELL AVE/WHITENDALE AVE	0.5	2 LANES W/MED	20000	13400	120%	0.67	B	13400	120%	0.67	B	13400	120%	0.67	B
	WHITENDALE AVE/WALNUT AVE	0.5	2 LANES W/MED	20000	12400	28%	0.62	B	12300	27%	0.62	B	12300	27%	0.62	B
	WALNUT AVE/W TULARE AVE	0.5	2 LANES	15000	13100	25%	0.87	D *	13000	24%	0.87	D *	12900	23%	0.86	D *
	W TULARE AVE/ST RD 198	0.5	2 LANES	15000	9800	40%	0.65	B	9800	40%	0.65	B	9700	39%	0.65	B
	ST RD 198/CENTER	0.3	3 LANES	22000	12700	72%	0.58	A	12500	69%	0.57	A	12500	69%	0.57	A
	CENTER/NE THIRD	0.4	2 LANES	22000	14800	87%	0.67	B	14600	85%	0.66	B	14600	85%	0.66	B
NW SECOND ST.	LOCUST ST/HOUSTON AVE	0.4	2 LANES	15000	5600	17%	0.37	A	5500	15%	0.37	A	5500	15%	0.37	A
NW THIRD ST.	COURT ST/HOUSTON ST	0.4	2 LANES	15000	5600	17%	0.37	A	5500	15%	0.37	A	5500	15%	0.37	A
NE THIRD ST.	COURT ST/HOUSTON ST	0.4	2 LANES	12000	8600	78%	0.55	A	8500	76%	0.54	A	8500	76%	0.54	A
BEN MADDOX WAY	ST RT 198/GOSHEN AVE	0.5	4 LANES W/LT	27000	22100	32%	0.82	D *	22400	33%	0.83	D *	22600	35%	0.84	D *
	GOSHEN AVE/HOUSTON AVE	0.5	4 LANES W/LT	27000	23200	68%	0.86	D *	23600	71%	0.87	D *	23600	71%	0.87	D *
LOVERS LANE	CALDWELL AVE/WALNUT AVE	1.0	4 LANES	27000	22100	140%	0.82	D *	21800	137%	0.81	D *	21800	137%	0.81	D *
	WALNUT AVE/ST RD 198	1.0	4 LANES	27000	22600	74%	0.84	D *	22400	71%	0.83	D *	22200	69%	0.82	D *
	ST RD 198/MILL CREEK	0.5	4 LANES	27000	20300	93%	0.75	C	20100	91%	0.74	C	20000	90%	0.74	C
	MILL CREEK/HOUSTON AVE	0.5	4 LANES	27000	16000	78%	0.59	A	16000	78%	0.59	A	16300	81%	0.60	B

comparison, Northgate Mall in Salinas, the single regional mall in a city of similar size, generates over 30,000 trips per day.

Likewise, the scenario which adds 1,000,000 square feet of retail and office development shows increased traffic only in the immediate vicinity of Mooney Boulevard. The impacts are siphoned away rather quickly as one moves away from Mooney. The similarities between the three forecasts are such that an interpretation can be made of the scenario with the highest intensity of land use; and this summary will apply to all scenarios.

STREET AND HIGHWAY DEFICIENCIES IN 2010

Table 5 indicates the following problem areas in the future:

- Caldwell Avenue from Lover's Lane to SR 99: The current 2-lane striping contributes in part to the service level problem on this street. However, even with the standard 5 lane section (4 through lanes and one left turn lane), portions of this street will still operate at Level E.

- Walnut Avenue east of Pinkham Road: Widening to the standard 5 lane section should solve this problem.

- State Route 198 between Akers and County Center: The problems identified in the existing conditions will become more severe in the future.

- Main Street between County Center and Mooney: Additional demand to the County Center and north-south connections to Mooney Boulevard will place more demands on this section.

- Main Street in Downtown Visalia: The forecasts suggest that Center and Acequia should assume a more prominent role as downtown continues to develop.

- Goshen Avenue from SR 99 to Santa Fe Avenue: The forecast new development in the northwest portion of the City will place significant demands on this street.

- Houston Avenue from Mooney Boulevard to Ben Maddox Way: The two lane, 44 foot curb-to-curb cross section will constrain the demand for east-west travel in this corridor.

- Demaree Road between 198 and Houston Avenue: North of Goshen Avenue, widening to an arterial standard should help this problem. South of Goshen, the demand exceeds that for the standard 5 lane section; the demand is caused in part by the "missing link" of Mooney between Goshen and Main.

- Mooney Boulevard between Main Street and Caldwell: the problems that exist today will be amplified in the year 2010. The forecast suggests that the road will operate at Level E even without the additional 1,000,000 square feet of development.

- Court Street between Walnut and Tulare: This street is designated as an arterial, though it has only 1 lane in each direction. Widening to a 4-lane undivided section would provide adequate capacity, though the frequent driveways and cross- streets which will generate left-turn demand will lead to less than ideal operation.

- Ben Maddox between Goshen and State Route 198: Growth in through traffic and in the Northeast Area will leave this arterial operating in the Service Level D range by 2010.

- Lover's Lane from Caldwell to 198: Volumes are high on this section largely because the current street system has no arterial between Court Street and Lover's Lane. A planned extension of Ben Maddox Way should solve this problem.

Potential solutions to these problems are described in Chapter V.

TRANSPORTATION POLICIES FOR THE CIRCULATION ELEMENT



The City of Visalia has adopted a number of policies affecting transportation over the years, and this document expands upon them. The intent is to present a comprehensive set of policies that govern the interface between land use and transportation, and to set out a policy blueprint of how new transportation facilities are to be developed in the future.

Transportation has become an integral part of people's daily lives and meeting the transportation needs of an increasingly mobile public is an important concern for the City of Visalia. However, care must be taken to assure that the kind of transportation facilities required to move the people and the goods will not degrade the quality of life for all Visalians. Therefore, the overall objective of the Circulation Element presented here is to provide efficient transportation facilities while maintaining social, economic, and environmental concerns of the City.

GENERAL CIRCULATION POLICIES

1. City policy is to continue to provide a high level of service to the community. Therefore, the City designates Service Level C as defined in the Highway Capacity Manual (published by the Transportation Research Board of the National Research Council) as the desirable service level at which freeways, arterial streets and collector streets should operate. All new facilities in these categories should be designed to operate at this level or better for a period of at least 20 years following their construction.

2. Certain public thoroughfares are designated in this circulation element as Freeways, Major Arterials, Arterial Streets, and Collector Streets. All public thoroughfares not so designated are deemed to be local streets.

3. The policy of the City of Visalia is that local streets shall not carry an unreasonable level of through traffic. Should it be determined than a local street is carrying an unacceptable level of through traffic, the City may take appropriate means to reduce traffic through creation of one-way traffic flow, installation of traffic diversion devices, and/or any other means deemed to be acceptable under the Vehicle Code of the State of California.

4. Arterial streets shall be built at a typical separation of one (1) mile with a typical right-of-way of 110 feet.

5. Collector streets shall be built at a typical separation of one mile (typically between adjacent arterial streets), with a typical right-of-way of 84 feet.

6. Arterial and collector street standards shall be developed which provide adequate capacity for their appropriate function, and these standards shall be incorporated into the City ordinances.

7. Median breaks and driveway standards for arterial and collector streets directly effect the performance of these roadways, and the following standards have been developed to facilitate the proper operation of these roadways:

Arterial Street Standards

a. Driveway access to major activity centers should be located no closer than 200 feet to the adjacent intersection of a collector or arterial street.

b. The distance between driveways along commercially developed arterials should not be less than 1000 feet.

c. Where possible driveways should be located on adjacent collector streets rather than on arterial streets.

d. Driveways along arterials to residential property should be discouraged; these properties should receive access from local streets.

e. If driveways must be provided near intersections for facilities (such as service stations) these driveways should not be serviced by median breaks and should be located no less than 50 feet from the intersection and should be separated by 50 feet, if more than one is required to serve a property. (The 50 feet are to be measured edge to edge not centerline to centerline.)

f. Driveway consolidation should be encouraged through joint access agreements along arterials where these standards are exceeded.

g. Median breaks should provide access to collector streets and to major activity centers and should parallel the standards for driveways: not less than 200 feet from an adjacent intersection of an arterial or collector street, and not less than 1000 feet between median breaks.

Collector Street Standards

a. Driveway access to major activity centers should be located no closer than 200 feet to the adjacent intersection of a collector or arterial street.

b. The distance between driveways and intersecting local streets should not be less than 500 feet.

c. Driveways to residential property along collectors should be consolidated whenever possible to maintain a minimum spacing of 500 feet.

d. If driveways must be provided near intersections for facilities (such as service stations) these driveways should not be serviced by median breaks and should be located no less than 50 feet from the intersection and should be separated by 50, if more than one is required to serve a property. (The 50 feet are to be measured edge to edge not centerline to centerline.)

e. Medians on collectors shall be concrete where left turn control is needed and by painted medians or two-way left turn pockets where appropriate. Where concrete medians are provided median breaks should be spaced not less than 500 feet apart.

8. Circulation within the City should be facilitated by improving the traffic carrying capacity of existing arterials and development of new alternative arterial thoroughfares.

9. The right-of-way widths and construction widths of all classes of streets from minor residential to major arterial shall be updated to reflect the street classifications in the Element.

10. Consideration shall be given to phased construction of the major arterials whereby sufficient right-of-way width is obtained for ultimate future needs, but street construction width is provided only to meet present (5-10 year) need thus avoiding the maintenance of unused pavement.

11. The City shall work toward acquiring right-of-way within older areas to aid the flow of arterials.

12. Improve access at the Highway 198 and Ben Maddox Way interchange. Such improvements to be subject to future review under policies (21) and (22) below.

13. A special analysis of surrounding arterials, collectors and access roads, as well as, regionally significant roadways, shall be required for all major traffic generators to assure citywide traffic service levels are maintained.

14. The City shall promote an active policy of consolidating driveways, access points and curb cuts along existing developed arterials when development or change in intensity occurs or when traffic operation or safety warrants.

15. Parking standards will be evaluated to ensure that parking requirements are satisfied within walking distance of development, and so that arterial streets do not separate parking from the parking demand generator.

16. On-street parking should be discouraged where inappropriate and should be minimized outside the Central Business District.

17. Non-residential parking on residential streets shall be discouraged.

18. Multi-level parking facilities near major traffic generators should be encouraged where possible.

19. A downtown parking plan shall be developed.

20. Transportation System Management is an applicable strategy for the mitigation of traffic and parking congestion. Public transit, traffic management, ridesharing and parking management will be used to implement transportation management strategies.

21. The City shall maintain a high level of intergovernmental coordination and citizen participation in the circulation and transportation planning process.

22. The City will work with other agencies to assure that regional transportation plans are consistent with the City's land use policies.

CIRCULATION POLICIES AFFECTING LAND USE

23. All land development proposals shall be reviewed to assure consistency with this circulation element.

24. Residential subdivisions will be designed to discourage use of local streets as a bypass to congested arterials. It is considered desirable that all access to residential development be from collector streets.

25. Where major new commercial developments are proposed along arterial streets, designs shall be encouraged which minimizes construction along the adopted set-back line.

26. Development along arterials which are at capacity shall mitigate traffic impacts associated with their improvements.

27. Since the Visalia Municipal Airport serves both Tulare and Kings Counties as the only air carrier airport, and as a primary business, corporate, and general aviation airport, efforts shall continue to be made to upgrade the service capacity of the airport. The City shall discourage land uses surrounding the airport which would reduce its ability to function as an element of the transportation system.

CIRCULATION POLICIES AFFECTING LAND ACCESS

28. To insure that the transportation system is so planned to minimize social and economic disruptions to the neighborhoods, arterial streets shall skirt residential areas.

29. Where arterial and collector streets are required, residential development shall be oriented away (side-on or rear-on) from such streets, and properly buffered so that the traffic carrying capacity of the street will be preserved and the residential environment be protected from the adverse characteristics of the street.

30. Adequate access shall be provided to high intensity land use areas such as employment centers, shopping areas, and recreation facilities.

31. Due to the traffic congestion which results from numerous points of ingress and egress along commercial streets, future commercial developments or modifications to existing developments should be master planned with limited points of ingress and egress onto a major street.

32. Ingress and egress to shopping centers should be carefully designed in order to promote traffic safety. Left-hand movements into and out of commercial areas should be minimized and existing points of ingress and egress shall be consolidated whenever possible.

CIRCULATION POLICIES AFFECTING FACILITY DESIGN

33. Arterial streets shall be built to standards of 4 lanes for through traffic, a parking lane and a landscaped median for left turn access to collectors and major traffic generators.

34. Collectors streets shall be built to standards of 4 lanes for through traffic and optional median for left turn access to local streets and adjacent land uses. On street parking may be provided where street capacity does not require left turns or four through lanes.

35. Arterials and collectors in areas of existing development shall be built to standards consistent with a policy of reducing impacts on adjacent properties.

36. Where possible, arterials and collectors shall form 4-leg, right- angle intersections; jog, offset and skewed intersections of major streets in near proximity shall be avoided where possible.

37. Sidewalks, paths and appropriate crosswalks should be located in order to facilitate access to all schools and other areas with significant pedestrian traffic. Whenever feasible, pedestrian paths should be developed to allow for unobstructed pedestrian flow from within a neighborhood.

38. In order to promote safe and efficient traffic flow throughout the City, traffic signals shall be spaced no closer than 1/4 mile on 2-way arterials except in unusual circumstances. The intersections of arterial and collector streets and the access driveways to major traffic generators shall be located so as to maintain this minimum spacing.

39. Due to its traffic carrying demand, Mooney Boulevard shall be widened to six lanes with no on-street parking on a 146 foot right-of-way.

40. Realign and improve the intersection of N.E. Third/Houston/Santa Fe to eliminate conflicting traffic movements. Such design and improvements to be subject to future review under policies (21) and (22) above.

POLICIES AFFECTING TRANSIT SERVICES

41. Where security walls or fences are proposed for residential developments along arterial or collector streets, pedestrian access will be provided between the arterial or collector and the subdivision to allow access to transit vehicles operating on the arterial or collector street.

42. Arterials and collectors will be designed to allow transit vehicles to pull out of traffic. This policy may be implemented with either a continuous parking lane with bus stops, or with special bus pull-out lanes.

43. Give a high priority to public transportation systems which are responsive to the needs of the commuter, aged, handicapped and disadvantaged.

POLICIES AFFECTING OTHER MODES

44. Promote all modes of transportation, including bus, bicycle and walking, for the development of alternatives to the private automobile. Citizens Committees should be established to initiate such studies.

45. In order to provide safe and efficient multi-use corridors which encourage bike use, a comprehensive bicycle plan shall be developed.

46. The City shall promote safe, convenient and accessible pedestrian ways within the community.

47. To avoid an adverse impact between the circulation system and residential development it is recommended that truck traffic be oriented only onto the designated arterial streets.

STREET AND HIGHWAY CIRCULATION ELEMENT



This section of the Circulation Element identifies the corridors and facilities that are to be designated as freeways, arterials and collectors within Visalia's urban influence area. The element identifies these facilities within the existing City limits and in a surrounding area beyond current development.

Dealing as it does both with land that is currently urbanized as well as land that is not currently developed, this circulation element serves different purposes in these two broad areas. Within the existing urbanized area, the circulation element identifies classifications and standards for streets already in existence. In many cases, the streets are already developed to these standards; whereas in other cases, public works improvement projects will be needed at some time in the future to satisfy traffic demands on streets which are adequate for today's needs.

The purpose of identifying arterials and collectors in the as-yet undeveloped area is somewhat different. In presenting this circulation element, it is the City's intention to state clearly that the element does not constitute a determination to expand its urban boundaries in a particular direction; that is the function of the land use element. However, in the lifetime of this element, it is possible and in fact likely that land use may evolve in a different way than can currently be visualized. The purpose of designating arterials and collectors in the undeveloped area is to lay the foundation and the principles for a circulation plan that will serve the land use if and whenever a decision to develop occurs. The circulation element in the undeveloped area is thus intended to let both the future developers of the land and the present and future residents of the City understand the parameters of the circulation system as it will exist in the future.

STREET CLASSIFICATION DEFINITIONS AND STANDARDS

The proposed street classification for Visalia is intended to divide its traffic facilities into 5 categories:

Freeways
Intended exclusively for movement of high volumes of inter-city, regional, and longer local trips at high speeds.

Major Arterials
Intended to provide a high level of capacity in selected high volume corridors; provides connections to the freeway system and to collector streets; provides access to major travel generators. Typically designed

with 6 lanes for through traffic, a parking/transit/right turn lane, and a median with dual left turn lanes at intersections.

Arterials
Intended to provide the majority of the City's traffic carrying capacity; provides connections to the freeway system and to collector streets; provides access to major travel generators. Typically designed with 4 lanes for through traffic, two parking/transit/right turn lanes, and a median with single left turn lane at intersections.

Collectors
Intended to provide connectivity between local streets and the arterial street system; also provides access to adjacent land uses. Typically designed with four lanes for through traffic, two parking/transit lanes and/or a median for left turn access.

Local Streets
Intended exclusively to provide access to adjacent land uses. Typically designed with two through lanes with parking on both sides.

FREEWAY FACILITIES

Two freeways are proposed for inclusion in the Circulation Element. State Route 99, currently developed to freeway standards, will continue to be the north-south link to the State's highway and freeway system. State Route 198 is proposed to be converted to freeway standards between Road 80 and County Center Road. This will upgrade Route 198 to freeway standards throughout the City.

ARTERIAL STREETS

As shown on the fold-out map at the back of the Circulation Element, the following streets are proposed to be arterial streets within Visalia's urban influence area:

East-West Arterials

Arterial	*Limits*
Avenue 320	Road 80 to Eastern Urban Area Boundary
Riggin Avenue	SR 99 to Eastern Urban Area Boundary
St. John's Parkway	Riggin Avenue to Ben Maddox Way
Goshen Avenue	Riggin Avenue to Giddings Avenue
Houston Avenue/SR 216	Demaree Road to Eastern Urban Area Boundary
Center Street	One-way westbound from Ben Maddox Way via new diagonal to Hall Avenue
Main Street	Mineral King Avenue to Ben Maddox Way
Main Street	One-way eastbound from Hall Avenue to Stevenson Street

East-West Arterials (con't.)

Arterial	*Limits*
Main Street	Hall Avenue to County Civic Center
Acequia Street	One-way eastbound from Stevenson Street to Ben Maddox Way
Mineral King Avenue	Ben Maddox Way to Road 156
Mineral King Avenue	One-way westbound from Main Street to Mooney Boulevard
Noble Street	One-way eastbound from Mooney Boulevard to Ben Maddox Way via new diagonal
Noble Street	Ben Maddox Way to Road 156
SR 198 Frontage Roads	One-way roads on both sides of 198 from County Center Road to Akers Road.
Walnut Avenue	Plaza Drive to Road 148
Caldwell Avenue	SR 99 to Road 148
Avenue 272	Shirk Road to Eastern Urban Boundary

North-South Arterials

Arterial	*Limits*
Plaza Drive	Avenue 320 to Walnut Avenue
Shirk Road	Avenue 320 to Avenue 272
Akers Road	Avenue 320 to Avenue 272
Demaree Road	Avenue 320 to Avenue 272
Mooney Boulevard	Avenue 320 to Goshen Avenue
Mooney Boulevard	Main Street to Avenue 272 (MAJOR Arterial Standards)
Stevenson Street	One way southbound from Main Street to Acequia Street
Dinuba Boulevard	Avenue 320 to Roosevelt Avenue
N.W. Third	One-way southbound from Roosevelt Avenue to Locust Street
Locust Street	One way southbound from N.W. Third to Court Street (includes new Locust-Court connector)
Court Street	Tulare Avenue to Avenue 272
Court Street	One-way northbound from Caldwell Avenue to N.W. 2nd
N.W. Second	One way northbound from Court Street to Houston Avenue
Ben Maddox Way	Avenue 320 to Southern Urban Area Boundary
Lover's Lane	Avenue 320 to Southern Urban Area Boundary
McAuliff Road	Avenue 320 to State Road 198
Road 148	State Road 198 to Southern Urban Area Boundary
Road 152	Avenue 320 to Riggin Avenue
Road 152	State Road 216 to State Road 198

COLLECTOR STREETS

The fold-out map at the back of the Circulation Element, proposes the streets that will be collector streets within Visalia's urban influence area. Unlike the arterial streets which are intended to be fixed in alignment, the collectors in the undeveloped area are intended to be more conceptual. The intent is that a collector be build within the general corridor shown, and that intersections with arterials and other collectors create 4 leg intersections. Beyond these general guidelines, the collectors are to be designed and located in a manner so as to serve both functional and aesthetic objectives. The following streets are proposed as collectors:

East-West Collectors

Collector	*Limits*
Avenue 316/Pratt Road	Plaza Drive to the St. John's River
Avenue 316	St. John's River to Road 152
Avenue 308	Camp Drive to Road 84 (future)
Sunnyview	Road 84 to Shirk Road
Doe Avenue	Road 84 to Demaree Road
Ferguson Street	Linwood Avenue to Bridge Street
St. John's Parkway	Ben Maddox Way to Lover's Lane
St. John's parkway	McAuliff Road to State Route 216
Avenue 304	State 99 to Goshen Avenue
Hurley Avenue	Road 80 to Chinowth Road
Mill Creek Drive	Demaree Road to Main Street 682
Goshen Avenue	Mooney Boulevard to Giddings Avenue
Murray Street	Giddings Avenue to Santa De Avenue
Goshen Avenue	Santa Fe Avenue to Lover's Lane
Mill Creek Parkway	Lover's Lane to McAuliff Road (future)
Main Street	Stevenson Street to Ben Maddox Way
Tulare Avenue	Roeben Road to Eastern Urban Area Boundary
Whitendale Avenue	Roeben Road to Eastern Urban Area Boundary
K Road	Santa Fe Avenue to Road 156
Avenue 276/Midvalley Avenue	Shirk Road to Eastern Urban Area Boundary

North-South Collectors

Collector	*Limits*
Road 68	Betty Drive/Riggin Avenue to Avenue 304
Camp Drive	Betty Drive to Alta Way
Road 76	Riggin Avenue to Camp Drive
Alta Way	Camp Drive Extension to Road 80
Kelsey Street	Avenue 308 to State Road 198

North - South Collectors (Con't.)

Collector	*Limits*
Road 84	Avenue 320 to State Route 198
Road 86	State Road 198 to Walnut Avenue
Road 88	Goshen Avenue to State Road 198
Road 88	Avenue 320 to Riggin Avenue
Roeben Road	Avenue 320 to Doe Avenue
Roeben Road	State Route 198 to Avenue 272
Linwood Avenue	Avenue 320 to Doe Avenue
Linwood Avenue	Hurley Avenue to Avenue 272
Chinowth Road	Goshen Avenue to Caldwell Avenue
County Center Road	Avenue 272 to Houston Avenue
County Center Road	State Route 198 to Avenue 272
Woodland Drive	Main Street to Walnut Avenue
Divisadero Street	Houston Avenue to Goshen Avenue
Hall Avenue	One-way southbound from Goshen Avenue to Main Street
Giddings Avenue	River Way Drive to Houston Avenue
Giddings Avenue	One-way northbound from Nobel Avenue to Goshen Avenue
Giddings Avenue	Nobel Avenue to Whitendale Avenue
Giddings Avenue	Caldwell Avenue to Avenue 272
Jacob Street	Houston Avenue to Main Street
Conyer Street	Center Street to Walnut Avenue
Willis Street	Houston Avenue to Mineral King Avenue
Court Street	River Way Drive to N.W. Third Avenue
Santa Fe Avenue	Houston Avenue to Avenue 272
Burke Street	St. John's Parkway to Houston Avenue
Burke Street/BradleyStreet	Roosevelt Avenue to Walnut Avenue
New Collector East of Irma Street	St. John's Parkway to Goshen Avenue
Cain Street	St John's Parkway to Mineral King Avenue
Pinkham Road	Noble Avenue to Southern Urban Area Boundary
Lovers Lane	Avenue 320 to Riggin Avenue
McAuliff Road	Noble Avenue to Southern Urban Area Boundary
Road 148	Avenue 320 to State Road 216
Road 152	State Route 198 to Southern Boundary of Urban Area

SPECIAL TREATMENT

The approaches of Tulare Avenue, Walnut Avenue, Whitendale Avenue and Caldwell Avenue to Mooney Boulevard are proposed for special treatment in order to maximize the capacity of these critical intersections along Mooney. On each of the approaches, the cross-section should be designed for two lanes in each direction for through traffic, one lane for

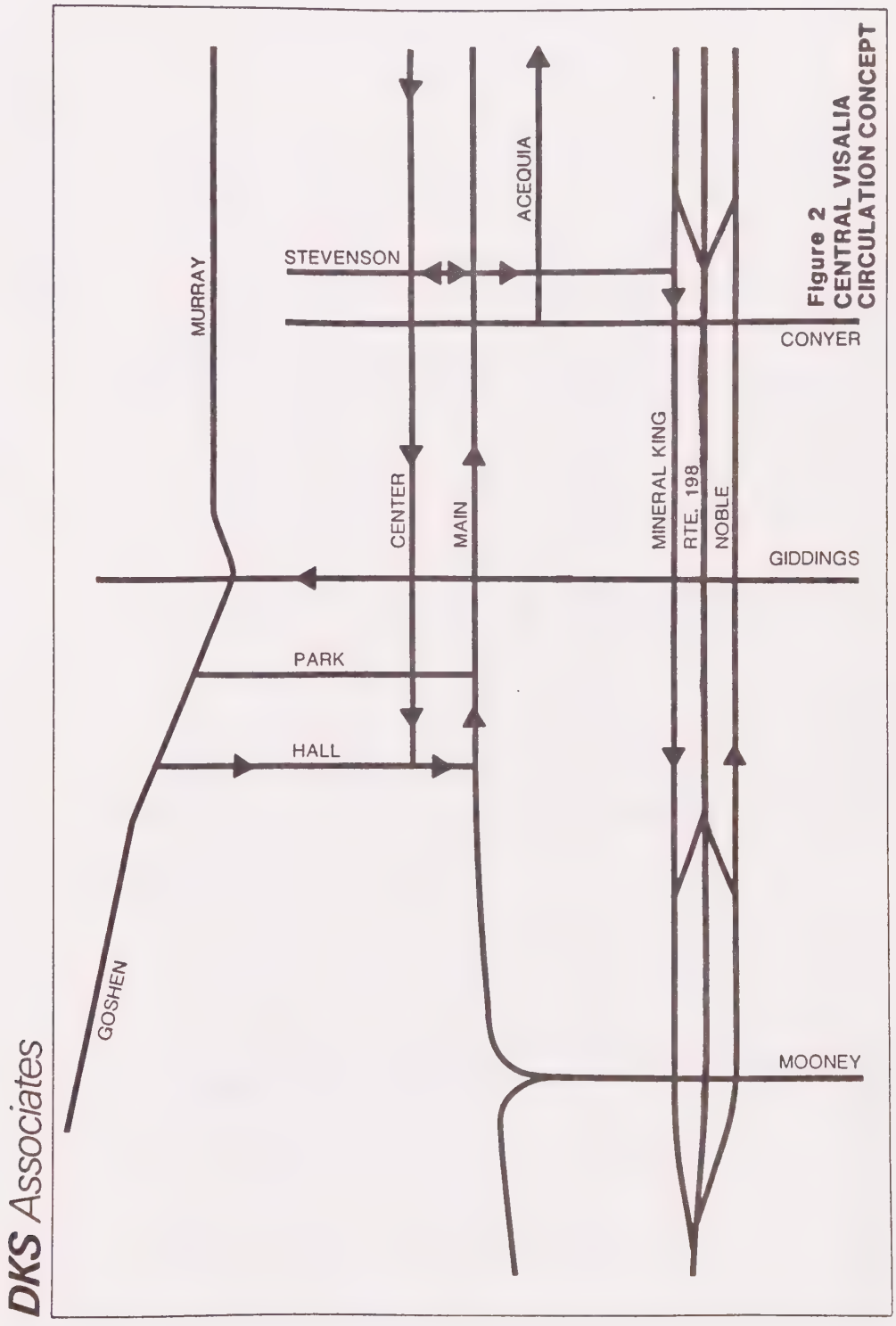


Figure 2
CENTRAL VISALIA
CIRCULATION CONCEPT

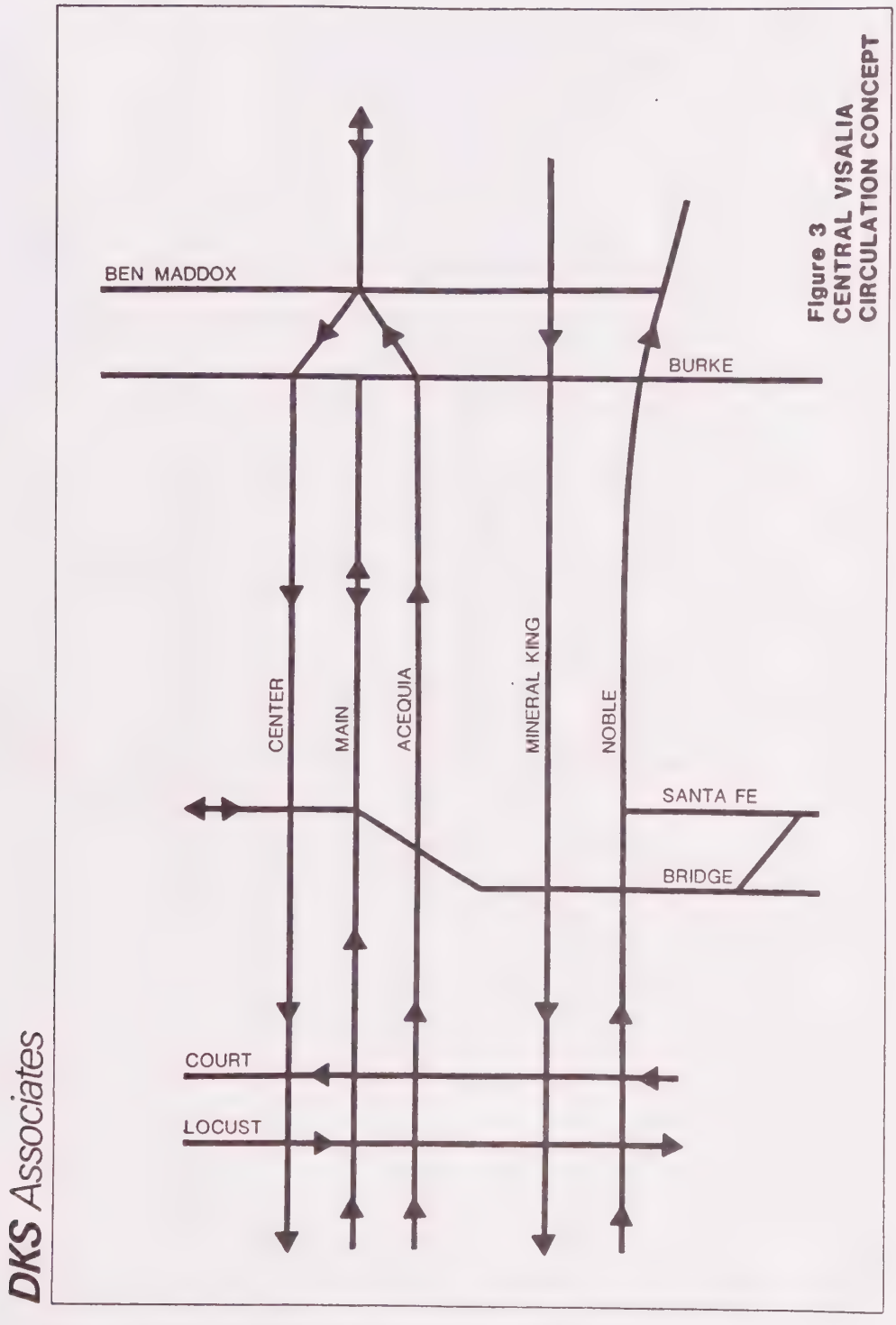


Figure 3
CENTRAL VISALIA
CIRCULATION CONCEPT

right turning vehicles, and double left turn lanes. This design should extend approximately 700 feet on either side of Mooney Boulevard (including the taper from the standard section to the expanded section).

CENTRAL VISALIA CIRCULATION

The estimates in Table 5 of Main Street in downtown Visalia are but one indication of increasing traffic demand in the central area. As noted in Chapter II, the Mooney Boulevard "missing link" will also lead to congestion in the Main Street Corridor. The combination of circulation problems projected for this area has led to the development of circulation concepts shown in Figures 2 and 3. The intent is to extend the current one-way system and develop more capacity from existing streets rather than widening in an already developed area. The concept would make Center Street a one-way arterial from Ben Maddox Way to Hall Street. Eastbound traffic would be served by a one-way Main Street from Hall to Stevenson and a one-way Acequia Street from Stevenson to Ben Maddox; Stevenson would be made one-way southbound from Main to Acequia to ease the transition between the two eastbound streets. The concept includes new connector roadways west of Ben Maddox Way to join Main Street to Center and Acequia Streets.

Main Street between Stevenson and Bridge street would remain one-way eastbound, but would serve primarily a collector and local access function.

The primary benefits from this concept would be to aid in circulation and connectivity in the downtown area. Through traffic would be removed from the mall portion of Main Street, reducing the congestion on the street. Circulation and capacity improvements would be seen in the vicinity of Redwood High School, and improved access to the downtown would be provided from the east.

Another concept shown in Figure 2 involves creating a north-south couplet of Hall and Giddings Streets. Hall would be made one-way southbound between Goshen and Main, while Giddings would be made one-way northbound starting at either Noble or Mineral King and continuing to Goshen Avenue. These streets would in effect substitute for the missing Mooney Boulevard link. The one-way streets would provide additional capacity in this corridor without the need for additional street widening.

CIRCULATION IN THE VICINITY OF THE VISALIA AIRPORT

The Master Plan for the Visalia Airport was developed and updated during the time that the Visalia Circulation Element was under review. The Draft of the Visalia Municipal Airport Master Plan was published in June, 1988. The conclusions and recommendations of that plan are incorporated into

the Circulation Element by reference. The plan recommends the realignment of Plaza Drive through the airport and Park area; otherwise, it requires no substantial modifications to the existing circulation system in the vicinity of the airport.

LOCAL ISSUES UNDER CONSIDERATION IN THE CONTEXT OF THE CIRCULATION ELEMENT

This document intended to outline the major elements of the City's circulation policies; as such, it concentrate largely on freeways, arterials, and collector streets. At any time in the City's history, however, there will always be a number of local issues under consideration, often involving local streets. Those issues should always be evaluated in the context of the overall circulation element. At the time of the preparation of this document, there were three local issues of concern that merited evaluation in the context of this element.

Fairway-Dorothea-Sunnyside Avenues and Martin Street: The amount of congestion at the intersection of Whitendale Avenue and Mooney Boulevard, coupled with the lack of a north-south collector street east of Mooney Boulevard, has resulted in the use of these four streets as a shortcut and bypass. As a result, they are carrying volumes beyond those which could normally be expected on a local street. In accordance with policy #3 of this circulation element, it may be desirable to initiate a study to close one or more of these streets to through traffic to reduce neighborhood traffic intrusion. Among the possible treatments are:

- Closing Sunnyside and Dorthea between Fairway and Divisadero
- Closing Hall and Martin north of La Vida

Fairway Avenue and School-Divisadero Streets: A certain amount of traffic is using these local residential streets as a replacement of the missing link of Mooney Boulevard between Goshen Avenue and Main Street. As with the above issue, this is a location which could be managed in accordance with Policy #3. Among the possibilities in this location are:

- Closing Divisadero Street South of Goshen Avenue
- Closing School Street between Divisadero and Fairway.
- Install "No Left Turn" signs on southbound Divisadero at School and on eastbound School at Divisadero.
- Create a series of one-way streets:
  - School Street one-way eastbound from Divisadero to Hall
  - Divisadero one-way southbound from Goshen to School
  - Hall one-way southbound from Goshen to Main
  - Giddings one-way northbound from Noble or Mineral King to Goshen

Tulare Avenue at Lover's Lane: There is currently no median break on Lover's Lane to allow for left turns to and from Tulare Avenue. As a result, drivers are forced either to travel a long out-of-direction path and make a U-turn, or else they travel illegally over private property to access the nearest median break. Since Lover's Lane is designated as an arterial street, and Tulare is designated as a collector, a median break should be installed on Lover's Lane at this location.

Parallel Streets to Mooney Boulevard between Caldwell and Whitendale: As a means of reducing traffic on Mooney Boulevard, and in parallel with the concept of intensifying land use in this vicinity, proposals have been made to create parallel streets at the rear of the commercial properties. The concept involves extending Fairway Avenue between Sunnyside and Whitendale east of Mooney, and creating a new street, tentatively called "Wall Street" west of Mooney. The intention is to take traffic which is currently using Mooney Boulevard for circulation purposes and move it to the parallel streets.

The database upon which the traffic forecasts for the circulation element is based is not of sufficient detail to allow a projection of the amount of traffic relief to Mooney Boulevard which would be obtained by these parallel streets.

With respect to policies and standards established in this circulation element, the current consultant would suggest that particular attention be paid to the intersections of these two streets with Whitendale and Caldwell Avenues. Policy #38 suggests that traffic signals should not be spaced closer than 1/4 mile on two-way arterial streets. Depending on its ultimate location, "Wall" Street may well meet this criterion. However, Fairway Avenue is located within 900 feet of Mooney Boulevard. Signal spacing closer than 1/4 mile creates very difficult signal progression problems - it is possible that any improvement to traffic flow on Mooney would result in poorer flow on Caldwell and Whitendale. It is suggested that if Fairway is extended, the intersections of Fairway-Whitendale and Fairway-Caldwell be unsignalized and limited to right turn in-right turn out operation.

Locust-to-Court Connector: A southbound connector roadway from Locust to Court Streets has been part of Visalia's Circulation Element for many years. However, the exact location of the connector is not yet certain. While its has previously been shown in a location just north of Tulare Avenue, it may be less disruptive and more economical to locate it to the north of Laurel Avenue. Further engineering study and design will be needed to identify the best location for this connector.

High-Volume Pedestrian Crosswalks: Concern has been expressed regarding the effects on traffic due to student pedestrian crossings at two locations in Visalia: on Mooney Boulevard at Myrtle Street and on Giddings Street between Main and Mineral King. The two conditions are somewhat different.

There is a clear need to formalize control of pedestrians crossing Mooney Boulevard at the College of the Sequoias. Approximately 160 pedestrians cross Mooney Boulevard between 12 and 1 o'clock during the school year, frequently in groups of 1 to three at a time. While signals might not be warranted were this an isolated site, uncontrolled pedestrian crossings with these pedestrian volumes are entirely inappropriate within a coordinated signal system and on a roadway of this nature.

Because the pedestrian volumes are high for only a short period of each day during college semesters, consideration was given to the option of manual traffic control at the crossing by a police officer. However, the cost of this is likely to exceed the amortized cost of a traffic signal.

The provision of pedestrian activated control signals would reduce delay at this location to a level similar to that experienced at nearby signalized intersections, resulting in significant savings to motorists. The preferred location for the signals would be at the Myrtle Street intersection; at the same time, the Beverly Lane crosswalk would be removed and possibly barricaded. The design options at Myrtle Street could allow all existing vehicle movements at the intersection or prohibit some in order to reduce intrusion into the residential area, if desired by the City.

The College has submitted a proposal to expand the parking area on the north end of the campus and abandon the parking lot on the east side of Mooney Blvd. This will provide some relief to the existing pedestrian conflicts on Mooney. However, it is projected that the expanded parking area will not provide an adequate number of on-campus parking stalls and therefore off-campus parking in the residential neighborhoods to the east of Mooney Boulevard is likely to continue.

A careful review of the situation should be completed after the opening of the new on-campus facility. If at that time the pedestrian signal is still warranted, than installation should proceed.

A different situation exists on Giddings Street in the vicinity of Redwood High School. Giddings is a collector street, and traffic signals are not coordinated to move traffic on Giddings to the same extent as on Mooney Boulevard. Further, there are other crossings available nearby. The Caltrans signal warrants for signalized school crossings require that the nearest signalized crossing be more than 600 feet away. As Main Street and Mineral King Avenue are separated by only 900 feet, it is clear that this warrant would not be satisfied.

The state warrants also require vehicle volumes of 500 cars in each of two hours and 100 school-age pedestrians crossing the street in the same two hours. As the request to study this location was received in July, actual counts must be delayed until the school year commences.

If the City chooses to follow the State warrants, it should conduct the necessary traffic and pedestrian counts; however, the spacing warrant would still not be satisfied. Alternatives to a signal include barricading the

crossing to force usage of the signalized crossings at Main and Mineral King, or using a crossing guard to control pedestrian crossings.

At the same time, motorists should recognize that Giddings is a collector street, and that parallel streets exist for through traffic that is delayed by the pedestrian crossing problem.

MAJOR PROJECTS IN THE CIRCULATION ELEMENT

The freeways, arterials and collectors described above will require several significant roadway improvement projects over the next 25 years to respond to the increased traffic demands. All of the projects are listed together with their costs in Chapter VII. Among the larger projects are:

State Route 198 Freeway: The circulation element proposes that 198 should be a freeway throughout its length in Visalia. This will require a major construction project between Plaza Drive and County Center Drive. The proposal would locate interchanges at Demaree Road, Akers Road and Shirk Road. Freeway overpasses would be constructed for County Center, Chinowth, Linwood and Roeben Roads.

Ben Maddox Way Extension: The extension of Ben Maddox from Walnut Avenue to Caldwell Avenue will provide an arterial street spaced approximately 1 mile from Lover's Lane and Court Street in this newly developing area.

Mooney Boulevard Widening: The traffic demands on Mooney Boulevard will require additional carrying capacity. The circulation element proposes a cross-section with six lanes for through traffic, a median with dual left turn lanes at key intersections, and a parking/transit/right-turn lane in each direction.

CIRCULATION ISSUES YET TO BE RESOLVED

There is one circulation issue yet to be resolved at the time that this Circulation Element was written.

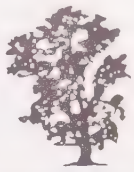
College of the Sequoias Parking: The growing demand for parking near the College campus has resulted in a significant growth in off campus parking. This parking demand is currently being met by on-street parking in the surrounding residential neighborhoods east, west and south of the campus.

This situation is expected to continue due to the College's commitment to expanding the facilities at the Visalia campus. The satisfaction of parking demand for the college cannot continue to be shifted off-campus. Therefore, the long term on-campus parking needs of the college should be taken into consideration when expansion planning is undertaken.

CHANGES FROM THE 1976-1996 CIRCULATION ELEMENT

For purposes of comparison, the above definition of arterials and collectors differs from the 1976-1996 circulation element within the current developed area as follows:

Street Segment	Prior Designation	New Designation
Ferguson Street - Mooney to Santa Fe	None	Collector
St. John's Parkway -		
Dinuba to Ben Maddox	None	Arterial
St John's Parkway -		
Ben Maddox to Lover's Lane	None	Collector
Goshen Avenue - Demaree to Mooney	Collector	Arterial
Mill Creek Drive - Main to Demaree	None	Collector
Mill Creek Parkway east of Lover's Lane	None	Collector
Main Street - Stevenson to Edison	Arterial	Collector
Stevenson - Main to Acequia	None	Arterial
Acequia - Stevenson to Ben Maddox	Collector	Arterial
Center - Ben Maddox to Hall	Collector	Arterial
Campus Drive - Woodland to Demaree	None	Collector
Road 84 - 198 to Doe Ave	None	Collector
Road 88 - 198 to Goshen Avenue	None	Collector
Jacob Street - Houston to Main	None	Collector
Willis Street - Houston to Mineral King	None	Collector
Burke - St. John's Parkway to Houston	None	Collector
Burke - Roosevelt to Walnut	None	Collector
Cain Street -		
St. John's Parkway to Mineral King	None	Collector



OTHER MODES

This chapter of the circulation element is intended to identify the way in which other modes will interface with the street and highways element. In addition, policies and directions specific to these other modes are documented.

PUBLIC TRANSIT

Visalia City Coach (VCC) will continue to be the primary provider of public transit services for the City in the foreseeable future. VCC will continue its policy of incremental fixed route service expansion to accommodate the growth of public transit ridership. Dial-a-Ride will continue as a back-up service to the route system.

In the next five years, it is projected that the Dial-a-Ride service will remain relatively constant, and that two new routes will be added to the system, possibly expanding service in east Visalia and along Goshen Avenue. These routes would service additional industrial area and transit dependent areas of demand. When the transportation center is developed at the Visalia Municipal Airport, it can be expected that service will be extended there as well.

The overall function of transit in the City is to provide service to a limited but increasingly important segment of the travel market. This segment includes the transit dependent, school children and a growing number of commuters. Currently, the transit function is largely one of providing a transportation service to those whose ability to travel would otherwise be greatly restricted if the service did not exist. As the transit ridership increases and service level improves, it may be expected that VCC will become an increasingly attractive alternative to the private automobile; and may become one of the solutions to future traffic problems. Therefore, transit will continue to have a vital and ever- growing role in satisfying an element of the City's travel needs; however, it is expected that the automobile will continue to be the dominant mode of travel so long as Visalia continues to develop with its current land use density and people have a valid choice in travel modes. Transit should not be looked upon as an alternative to investment in the street and highway system, but rather as an additional element in planning for the City's overall transportation.

With regard to the streets and highways element, transit service must be coordinated in four ways. First, the City Transit Division is interested in bus stops which permit a bus to pull-out of the moving traffic and not block automobile traffic while the bus is loading or unloading passengers. This implies that arterial and collector streets should be either designed with a

parking lane, or separate pull-out bays should be included in the street design. Since a primary advantage of bus transit is its flexibility in changing routes to meet changing demands, it is important to design the potential for transit service into new collectors and arterials.

The second area of coordination involves pedestrian access to transit routes and is as much involved with the Land Use Element as with the Circulation Element. Transit routes will continue for the most part to operate on arterial and collector streets. To support the transit system and to provide reasonably direct pedestrian access to nearby transit stops, as well as to other activities, it is vital that consideration be given to pedestrian facilities and walking distances from individual residential units to the collector and arterial streets. An item of specific interest is the provision of periodic breaks in walls which separate residential subdivisions from collector and arterial streets. Because of security concerns and noise impacts on residential property along arterial streets in particular, residential subdivisions have frequently included security walls along the arterial as a means of mitigating noise impacts. To provide access to transit by those living in the residential areas, it is essential that periodic breaks in the walls be provided. To conform with design guidelines contained in the Visalia City Coach 1988 Transit Plan, these pedestrian breaks should permit access to a bus stop the equivalent of every three blocks or less. Consideration of the pedestrian in subdivision design will provide the linkage between transit and the residential properties that is vital to both the transit system and its users.

The third area of coordination between the streets and highway element and transit concerns the proper location for transfer facilities. Currently, all transfer activity takes place "on-street" in three locations: downtown, the County Civic Center and along Mooney Boulevard near Walnut Avenue. The downtown and Mooney Boulevard locations have intense traffic as well as transit demands placed on them. As development or redevelopment proceeds in these two areas and traffic demand increases, the City may choose to consider developing "off-street" facilities.

The final area of coordination is in the area of parking demand mitigation. The City's greatest parking problems exist in the vicinity of the College of the Sequoias, the County Civic Center and downtown. Each of these are large generators which could be supported by transit, with a parallel reduction in parking demand. The transit system should be encouraged to market its services particularly in these three parts of the city so as to reduce parking demand.

RAILROADS

In the coming 25 years the City can be expected to be involved in three areas of coordination with railroads. The first will involve maintenance of freight service to and through the City. The City will want to take an active

role in seeing that service is maintained to all industries that currently depend on the railroads for distribution and receipt of products. If portions of existing lines are proposed for abandonment, the City will need to determine if the rights-of-way are of value for alternative transportation facilities. For example, Tulare County's Circulation Element recognizes the possibility of the abandonment of the Santa Fe right-of-way south of Caldwell Avenue between the Cities of Visalia and Tulare. The City may also have an interest in this property for transportation-related projects.

Passenger rail service will continue to be of interest to the City. While AMTRAK currently does not operate directly through the City, there has been continued interest in lobbying for such service. The newly formed San Joaquin Valley Rail Task Force will be involved in evaluation and lobbying efforts on direct service to Visalia as well as other rail service issues. Through its representation on TCAG, the City should remain involved in presenting its case for such service.

Finally, the issue of rail crossings will have a significant impact on the design of Visalia's circulation element. Currently, policies are in effect that there can be no net increase in the number of rail crossings; each new crossing must be accompanied by an abandonment. As a result, collector streets in the northwest section of town that would normally expect to connect to Goshen Avenue are terminated short of Goshen due to the presence of the Southern Pacific rail line.

It may be of value to the City to conduct an inventory of its rail crossings, particularly in the middle of town. There are a number of local streets whose sole purpose is to provide access to the adjacent properties. At-grade rail crossings for these streets are not absolutely essential. The same may be true of some crossings of the Santa Fe tracks south of Tulare Avenue. The City may wish to investigate the feasibility of closing some of these crossings in exchange for additional collector street at-grade crossings in other parts of the City.

AIR TRANSPORTATION

Reference is made to the Visalia Airport Master Plan which is expected to be adopted in 1990.

BICYCLES

The City has an adopted policy (Number 45 in the list of policies in Chapter IV) that recommends that a bicycle route system be planned that would serve the needs of the users and provide a greater margin of safety.

The City's Department of Public Works has striped a number of collectors with bicycle lanes on an interim basis (see Chapter II). While making use of otherwise wasted pavement, this striping is considered to be temporary until such time that traffic increases to levels where the street will be restriped with additional lanes for traffic. It is thus not a long term solution, nor does it necessarily provide the foundation for a consistent set of bicycle routes oriented at bicycle travel patterns.

The significant level of use of the existing lanes, combined with the eventual pressures to convert some to traffic lanes, suggests that the City may wish to re-examine its current view of the role of bicycles in the community. Formation of a Citizen's committee to investigate the level of interest in the community may be an appropriate starting point. Likewise, the work produced by the committee in the early 1980s is an excellent starting point for design and policy guidelines; the first year implementation plan likewise may be an appropriate beginning place for identifying a comprehensive bike route plan and implementation program.

The role of bicycles is important to the street and highway element in that it may affect the standards for roadway cross-section. If bicycle lanes are to become a permanent feature of collector streets, for example, provision for their design should be included in the standard cross-section.

TRUCKS AND GOODS MOVEMENT

Chapter II lists the streets and highways that are currently designated as truck routes. These streets provide adequate access through the City for trucks, and the current truck route system is not deficient. Further, the City supported by affected citizenry has a history of prohibiting trucks on many streets due to noise and safety concerns. Additional truck routes in non-residential areas would be useful primarily to give additional flexibility to heavy truck operators. Within this framework, the only possible candidates for additions to the truck route system would appear to include:

- Santa Fe Avenue between 198 and the southern City Limits (a possible alternative to Ben Maddox Way if the land adjacent to Ben Maddox is developed for residential use).

- Plaza Drive from Goshen Avenue north as the City expands in that direction.

- Shirk Road from Goshen Avenue to State Route 198 (to complete a connection with Goshen Avenue which currently terminates as a truck route at Shirk Road).

- Demaree Road from State Route 198 to Riggin Avenue.
- Riggin Avenue from State Route 99 to Akers Road.



COSTS AND FUNDING OF CIRCULATION ELEMENT PROJECTS

CIRCULATION ELEMENT COSTS

Table 5 identified a number of locations where traffic demand will exceed the desired service level by the year 2010. To solve those problems, a number of specific improvement projects have been identified for implementation over the next 25 years. This section of the Circulation Element provides a detailed description of the projects together with order-of-magnitude cost estimates. A table is also included identifying potential funding sources for each project.

The costs prepared for this element are intended to be **order-of-magnitude estimates only**, and are intended specifically for identifying funding impacts. No field reconnaissance of the individual projects has been done to verify engineering details which might have a significant bearing on the eventual costs. To arrive at these estimates, costs have been based on typical unit costs for both construction and right-of-way .

Project Descriptions and Cost Estimates

Caldwell Avenue at Mooney Boulevard: The proposal is to widen Caldwell Avenue for 700 feet to the west of Mooney Boulevard and 1000 to the east to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The 700 feet is inclusive of the taper between the existing and widened cross-sections.

Estimated Construction Cost:	$ 599,000
Estimated Right-of-Way Cost:	$ 1,192,000
Total Cost:	$ 1,791,000

Caldwell Avenue from Fairway Avenue to Lover's Lane: The project would widen Caldwell Avenue to the standard arterial width of 110 feet to provide two lanes for through traffic and a right turn/transit/parking lane in each direction and a left turn median.

Estimated Construction Cost:	$ 8,242,000
Estimated Right-of-Way Cost:	$ 768,000
Total Cost:	$ 9,010,000

Whitendale Avenue at Mooney Boulevard: This project would widen Whitendale Avenue for 700 feet on either side of Mooney Boulevard to provide for two through lanes and one right turn lane in each direction, and

a median with dual left turn lanes for access to Mooney Boulevard. The 700 feet is inclusive of the taper between the existing and widened cross-sections.

Estimated Construction Cost:	$ 550,000
Estimated Right-of-Way Cost:	$ 1,466,000
Total Cost:	$ 2,016,000

Walnut Avenue at Mooney Boulevard: Walnut Avenue would be widened for 700 feet on either side of Mooney Boulevard to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The 700 feet is inclusive of the taper between the existing and widened cross-sections.

Estimated Construction Cost:	$ 530,000
Estimated Right-of-Way Cost:	$ 1,165,000
Total Cost:	$ 1,695,000

Tulare Avenue at Mooney Boulevard: As with the other major cross-streets of Mooney Boulevard, Tulare Avenue would be widened for 700 feet on either side of Mooney Boulevard to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The 700 feet is inclusive of the taper between the existing and widened cross-sections.

Estimated Construction Cost:	$ 709,000
Estimated Right-of-Way Cost:	$ 1,986,000
Total Cost:	$ 2,695,000

State Route 198 - Plaza Interchange to State Route 63: This portion of Route 198 would be converted to a four-lane freeway with interchanges at Akers Road, Demaree Road, and Shirk Road. Existing intersections at County Center, Chinowth, Linwood, and Roeben would be closed and be replaced by freeway over- or under-passes. One-way frontage roads would be constructed from County Center Road to Akers Road. Depending on the eventual disposition of land use planning west of Akers Road, frontage roads might also be constructed between Akers Road and the Plaza interchange; however, these have not been included in the cost estimates.

Estimated Construction Cost:	$ 21,241,000
Estimated Right-of-Way Cost:	$ 36,600,000
Total Cost:	$ 57,841,000

Goshen Avenue - Lover's Lane to Santa Fe Avenue: The project would widen this portion of Goshen Avenue to the standard collector width of 84 feet to provide two lanes in each direction for through traffic and a left turn median. Goshen Avenue would be realigned in the vicinity of Lover's Lane to create a four-leg intersection at Mill Creek Parkway.

Estimated Construction Cost:	$ 4,098,000
Estimated Right-of-Way Cost:	$ 562,000
Total Cost:	$ 4,660,000

Goshen Avenue/Murray Avenue - Santa Fe Avenue to Mooney Boulevard: This portion of Goshen and Murray is developed with residential frontage and rather narrow setbacks. It is not practical to widen to a full collector or arterial cross-section in this segment. The proposal is to widen within existing right-of-way to provide for two lanes in each direction with left turn bays at key intersections.

Estimated Construction Cost:	$ 1,806,000
Estimated Right-of-Way Cost:	$ 0
Total Cost:	$ 1,806,000

Goshen Avenue - Mooney Boulevard to Plaza: The project would widen this portion of Goshen Avenue to arterial width to provide two lanes in each direction for through traffic and a left turn median.

Estimated Construction Cost:	$ 9,447,000
Estimated Right-of-Way Cost:	$ 784,000
Total Cost:	$ 10,231,000

Houston Avenue - Santa Fe Avenue to McAuliff: The project would standardize the cross-section of the street at four lanes plus turn median and add sidewalks on both sides to add to the safety for school children who traverse this street.

Estimated Construction Cost:	$ 2,440,000
Estimated Right-of-Way Cost:	$ 885,000
Total Cost:	$ 3,325,000

Houston Avenue - Demaree Road to Santa Fe Avenue: Houston Avenue will become a major east-west arterial street in Visalia in the coming 25 years. A portion of the street between Santa Fe Avenue and Mooney Boulevard is built to old collector street standards and will require a significant construction project. A four-lane undivided street with parking on both sides is proposed, with parking being removed in favor of left turn lanes at critical intersections. Between Mooney and Demaree, land is currently vacant, and the standard 110 foot cross-section for an arterial street can be constructed.

Estimated Construction Cost:	$ 5,829,000
Estimated Right-of-Way Cost:	$ 2,144,000
Total Cost:	$ 7,973,000

Riggin Avenue - State Route 99 to Riggin: To complete the new access between State Route 99 and Goshen Avenue, Riggin Avenue would be realigned to connect directly to Betty Drive, the location of an existing interchange on SR 99. An overpass of the Southern Pacific Railroad would be constructed as part of this project to reduce delays and improve safety conditions. The project would construct Riggin to the arterial standard of 110 feet.

Estimated Construction Cost:	$ 7,489,000
Estimated Right-of-Way Cost:	$ 1,034,000
Total Cost:	$ 8,523,000

Riggin Avenue - Demaree Road to Dinuba Boulevard (SR 63): To respond to expected new residential growth in the northern part of the City, Riggin Avenue would be widened to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane on each side, and a left turn median.

Estimated Construction Cost:	$ 5,991,000
Estimated Right-of-Way Cost:	$ 530,000
Total Cost:	$ 6,521,000

Plaza Drive - State Route 198 to Riggin Avenue: Traffic forecasts indicate that the desirable service level for this segment of Road 80 will be exceeded by the year 2010. The project would widen Road 80 in this segment to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane, and a left turn median.

Estimated Construction Cost:	$ 7,004,000
Estimated Right-of-Way Cost:	$ 576,000
Total Cost:	$ 7,580,000

Plaza Drive - Vicinity of Airport: As the airport develops, it will be desirable to realign Plaza Drive within the airport to remove two significant curves in the road:

Estimated Construction Cost:	$ 587,000
Estimated Right-of-Way Cost:	$ 0
Total Cost:	$ 587,000

Demaree Road - Riggin Avenue to Goshen Avenue: This road will be one of the key north-south links in Visalia in the 21st century. It will serve its own significant tributary area and also make up, in part, for the "missing link" of Mooney Boulevard between Goshen Avenue and Main Street. The project would widen this segment of Demaree Road to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane on each side, and a left turn median.

Estimated Construction Cost:	$ 3,684,000
Estimated Right-of-Way Cost:	$ 328,000
Total Cost:	$ 4,012,000

Mooney Boulevard - State Route 198 to Caldwell Avenue: Table 5 indicates that the combination of traffic growth due to Citywide population growth and the redevelopment and intensification of land use along Mooney Boulevard will result in traffic that will exceed the maximum capacity of Mooney Boulevard, and will be as much as 30 percent above the capacity needed to provide operation at Service Level C. The proposal to stripe an additional lane within the existing Mooney Boulevard will not solve this problem. That interim striping proposal will not add

capacity to the street; rather it will clarify lane assignments and separate through traffic from driveway access traffic.

To serve the volume of traffic projected, a more significant improvement project will be required. The project proposed in this circulation element would be to create a major street cross-section with three lanes for through traffic in each direction, a parking/right-turn/driveway access/ transit lane in each direction, plus a median sufficient to provide for dual left turn lanes at signalized intersections. It is estimated that the current 110 foot right-of-way would need to be widened to 146 feet to accommodate the required lanes.

Estimated Construction Cost:	$ 8,186,000
Estimated Right-of-Way Cost:	$ 13,462,000
Total Cost:	$ 21,648,000 682

Court-Locust Connector: The purpose of this project is to provide a smoother transition between the Court-Locust one-way couplet north of Tulare Avenue and the two-way arterial section of Court Street south of Tulare. The one-way southbound connector from Locust to Court would be located north of Tulare Avenue, and would require acquisition of right-of-way currently occupied by residential properties. A 72 foot right-of-way is proposed, providing for two 8 foot parking lanes and three 12 foot travel lanes.

Estimated Construction Cost:	$ 520,000
Estimated Right-of-Way Cost:	$ 916,000
Total Cost:	$ 1,436,000

Court Street - Walnut Avenue to Tulare Avenue: This street is designated as an arterial street, but it currently provides only one lane in each direction. The proposal is to provide for two lanes plus parking in each direction without a median. Left turn lanes would be striped at key intersections. This cross-section is intended to eliminate the need to acquire residences along this segment.

Estimated Construction Cost:	$ 792,000
Estimated Right-of-Way Cost:	$ 572,000
Total Cost:	$ 1,364,000

Santa Fe Avenue - Bridge Street Connectors: Santa Fe Avenue is discontinuous over State Route 198. This concept would create connector roadways between Santa Fe Avenue and Bridge Street to improve collector street continuity in this portion of Visalia.

Estimated Construction Cost:	$ 1,040,000
Estimated Right-of-Way Cost:	$ 1,832,000
Total Cost:	$ 2,872,000

Ben Maddox Way - Walnut Avenue to Caldwell Avenue: Portions of this designated arterial currently exist. The project would complete the

missing links using the proposed standard 110 foot cross-section for an arterial street.

Estimated Construction Cost:	$ 2,629,000
Estimated Right-of-Way Cost:	$ 990,000
Total Cost:	$ 3,619,000

Akers - Caldwell to Walnut: The project would widen Akers from Caldwell to Walnut to provide for two through lanes, a right turn lane and left turn pockets in the median. The street would be constructed to the 110 feet of right-of-way arterial standard.

Estimated Construction Cost:	$ 262,000
Estimated Right-of-way Cost:	$ 2,947,000
Total Cost:	$ 3,209,000

Akers - Goshen to Riggin: The project would construct Akers to a full arterial on a 110 foot right-of-way. The street would provide for two through lanes, a right turn lane and left turn pockets in the median. 682

Estimated Construction Cost:	$ 262,000
Estimated Right-of-way Cost:	$ 2,947,000
Total Cost:	$ 3,209,000

Goshen - SH 99 to Plaza: The project would widen Goshen from SH 99 to Plaza Drive to provide for two through lanes, a right turn lane and left turn pockets in the median. The street would be constructed to the 110 feet of right-of-way arterial standard. The project would tie to the proposed Goshen Avenue overcrossing of SH 99 and provide for east-west traffic.

Estimated Construction Cost:	$ 262,000
Estimated Right-of-way Cost:	$ 2,947,000
Total Cost:	$ 3,209,000

Shirk - SH 198 to Riggin: The project would construct Shirk to a full arterial on a 110 foot right-of-way. The street would provide for two through lanes in each direction, a right turn lane and left turn pockets in the median.

Estimated Construction Cost:	$ 525,000
Estimated Right-of-way Cost:	$ 5,894,000
Total Cost:	$ 6,419,000

SH 99 - Caldwell to Betty: The State is proposing to add two additional lanes to SH 99 to provide for future traffic demand. This project will provide three lanes in each direction.

Estimated Construction Cost:	$ 0
Estimated Right-of-way Cost:	$ 4,000,000
Total Cost:	$ 4,000,000

Caldwell - SH 99 to Akers: The project would construct Caldwell to a full four lane arterial on a 110 foot right-of-way. The County of Tulare would be the responsible agency for this project.

Estimated Construction Cost:	$ 600,000
Estimated Right-of-way Cost:	$ 2,000,000
Total Cost:	$ 2,600,000

Plaza - SH 198 to Walnut: The project would complete the construction of Plaza to arterial standards. The project would construct a full arterial on a 110 foot right-of-way. The street would provide for two through lanes in each direction, a right turn lane and left turn pockets in the median.

Estimated Construction Cost:	$ 0
Estimated Right-of-way Cost:	$ 587,000
Total Cost:	$ 587,000

Goshen - SH 99 Overcrossing: The widening of SH 99 and the construction of Goshen Avenue to arterial standards will warrant the construction of an overcrossing of SH 99. The project would connect Goshen Avenue with Road 68 and the west Goshen area.

Estimated Construction Cost:	$ 1,000,000
Estimated Right-of-way Cost:	$ 1,500,000
Total Cost:	$ 2,500,000

Road 68 - SH 198 Overcrossing: The eventual conversion of SH 198 to a four lane facility plus the growth in the community of Goshen will necessitate the construction of an overcrossing at Road 68.

Estimated Construction Cost:	$ 1,000,000
Estimated Right-of-way Cost:	$ 1,500,000
Total Cost:	$ 2,500,000

Acequia/Center Connectors: The project would complete the Acequia/ Center one-way couplet by connecting the one-way streets to the intersection of Main and Ben Maddox. The connectors would be constructed to provide for three lanes of traffic plus turn lanes at critical intersections.

Estimated Construction Cost:	$ 1,832,000
Estimated Right-of-way Cost:	$ 1,040,000
Total Cost:	$ 2,872,000

McAuliff - Widen St. Johns River Bridge: The project would widen the McAuliff Bridge over the St. Johns River to provide for two through lanes

in each direction plus a median. The project would be a joint City/County project and would complete the McAuliff arterial over the river.

Estimated Construction Cost:	$ 0
Estimated Right-of-way Cost:	$ 1,400,000
Total Cost:	$ 1,400,000

FUNDING OPTIONS

During the development of the Visalia Circulation Element several options for funding the element were discussed. The process for developing a workable funding plan for the projects listed in the element began with an evaluation of the costs of each project, identification of the funding needs by jurisdiction, delineation of existing funding sources and the identification of funding shortfalls.

Table 6 lists each of the projects and provides cost estimates for right-of-way and construction and provides a funding breakdown by jurisdicition. Funding for projects in this element can be expected from the following; the State of California, the City of Visalia, the various Redevelopment Agencies in the community, the County of Tulare and the private sector.

The City of Visalia has two types of projects identified, new projects and old projects. New projects are those projects associated with new development or development along already developed streets. Old projects are those projects which the community feels warrant the expenditure of funds to bring an older street up to current standards or for relief from congestion.

Funding sources were then identified by jurisdiction. It has been assumed that the State of California, the County of Tulare and the various Redevelopment Agencies will have adequate funding for the projects identified. The private participation reflects the current City policy of requiring the dedication of right-of-way and the construction of half of a local street plus the curb, gutter and sidewalk on all new streets in developing areas.

The City of Visalia's existing funding sources were identified and are shown in Table 7. Funds shown represent projected revenues over the next 20 years. Based on those revenues identified for construction, the City was projected to have a funding shortfall of approximately $47 million.

City of Visalia

Circulation Element Projects

Project	COST ESTIMATES			FUNDING TOTALS						
	Construction	Right-of-Way	Totals	State of California	New Projects	Remedial Projects	Redevelop. Agencies	County of Tulare	Private	Totals
Caldwell @ Mooney	$599,000	$1,192,000	$1,791,000	$0	$447,750	$447,750	$895,500	$0	$0	$1,791,000
Whitendale @ Mooney	$550,000	$1,466,000	$2,016,000	$0	$504,000	$504,000	$1,008,000	$0	$0	$2,016,000
Walnut @ Mooney	$530,000	$1,165,000	$1,695,000	$0	$423,750	$423,750	$847,500	$0	$0	$1,695,000
Tulare @ Mooney	$709,000	$1,986,000	$2,695,000	$0	$673,750	$673,750	$1,347,500	$0	$0	$2,695,000
Caldwell - Fairway to Lovers Lane	$8,242,000	$768,000	$9,010,000	$0	$7,912,320	$0	$0	$0	$1,097,680	$9,010,000
SH 198 - Plaza to County Center	$21,241,000	$36,600,000	$57,841,000	$57,841,000	$0	$0	$0	$0	$0	$57,841,000
Goshen - Plaza to Mooney	$9,447,000	$784,000	$10,231,000	$0	$0	$8,880,180	$0	$0	$1,350,820	$10,231,000
Goshen/Murray - Mooney to Santa Fe	$1,806,000	$0	$1,806,000	$0	$0	$1,806,000	$0	$0	$0	$1,806,000
Goshen - Santa Fe to Lovers Lane	$4,098,000	$562,000	$4,660,000	$0	$3,770,160	$0	$0	$0	$889,840	$4,660,000
Riggin - SH 99 to Riggin	$7,489,000	$1,034,000	$8,523,000	$0	$7,489,000	$1,034,000	$0	$0	$0	$8,523,000
Riggin - Demaree to Dinuba	$5,991,000	$530,000	$6,521,000	$0	$5,571,630	$0	$0	$0	$949,370	$6,521,000
Plaza - SH 198 to Riggin	$7,004,000	$576,000	$7,580,000	$0	$6,793,880	$0	$0	$0	$786,120	$7,580,000
Demaree - Goshen to Riggin	$3,684,000	$328,000	$4,012,000	$0	$3,426,120	$0	$0	$0	$585,880	$4,012,000
Mooney Blvd. - Caldwell to SH 198	$8,186,000	$13,462,000	$21,648,000	$0	$5,412,000	$5,412,000	$10,824,000	$0	$0	$21,648,000
Court/Locust connector	$520,000	$916,000	$1,436,000	$0	$0	$1,436,000	$0	$0	$0	$1,436,000
Court widening - Walnut to Tulare	$792,000	$572,000	$1,364,000	$0	$0	$1,364,000	$0	$0	$0	$1,364,000
Santa Fe/Bridge connectors	$1,040,000	$1,832,000	$2,872,000	$0	$0	$1,436,000	$1,436,000	$0	$0	$2,872,000
Ben Maddox - Walnut to Caldwell	$2,629,000	$990,000	$3,619,000	$0	$2,471,260	$0	$0	$0	$1,147,740	$3,619,000
Houston - Demaree to Santa Fe	$5,829,000	$2,144,000	$7,973,000	$0	$1,865,280	$5,595,840	$0	$0	$511,880	$7,973,000
Houston - Santa Fe to McAuliff	$2,440,000	$885,000	$3,325,000	$3,325,000	$0	$0	$0	$0	$0	$3,325,000
Akers - Caldwell to Walnut	$2,947,000	$262,000	$3,209,000	$0	$2,711,240	$0	$0	$0	$497,760	$3,209,000
Akers - Goshen to Riggin	$2,947,000	$262,000	$3,209,000	$0	$2,711,240	$0	$0	$0	$497,760	$3,209,000
Goshen - SH 99 to Plaza	$2,947,000	$262,000	$3,209,000	$0	$2,711,240	$0	$0	$0	$497,760	$3,209,000
Shirk - SH 198 to Riggin	$5,894,000	$525,000	$6,419,000	$0	$5,422,480	$0	$0	$0	$996,520	$6,419,000
SH 99 - Caldwell to Betty	$4,000,000	$0	$4,000,000	$4,000,000	$0	$0	$0	$0	$0	$4,000,000
Caldwell - SH 99 to Akers	$2,000,000	$600,000	$2,600,000	$0	$0	$0	$0	$2,600,000	$0	$2,600,000
Plaza - SH 198 to Walnut	$587,000		$587,000	$0	$0	$587,000	$0	$0	$0	$587,000
Goshen - SH 99 Overcrossing	$1,500,000	$1,000,000	$2,500,000	$1,250,000	$0	$625,000	$0	$625,000	$0	$2,500,000
Road 68 - SH 198 Overcrossing	$1,500,000	$1,000,000	$2,500,000	$2,500,000	$0	$0	$0	$0	$0	$2,500,000
Acequia/Center connectors	$1,040,000	$1,832,000	$2,872,000	$0	$0	$0	$2,872,000	$0	$0	$2,872,000
McAuliff - widen St. Johns Bridge	$1,400,000	$0	$1,400,000	$0	$0	$700,000	$0	$700,000	$0	$1,400,000
TOTALS	$119,588,000	$73,535,000	$193,123,000	$68,916,000	$60,317,100	$30,925,270	$19,230,500	$3,925,000	$9,809,130	$193,123,000

Table 7
City Funding Sources
(funds are in 1,000's of dollars)

Source	Expenditure Category			
	Total Funds	*Construction*	*Maintenance*	*Transit*
Federal Aid Urban	$ 8,041	$ 8,041		
State Gas Tax	$ 28,071		$ 28,071	
Transportation Development Act	$ 27,779	$ 6,945		$ 20,834
Vehicle In-Lieu Fees	$ 58,365	$ 29,182	$ 29,182	
Totals	$ 122,255	$ 44,168	$ 57,253	$ 20,834

Several options were discussed for eliminating or reducing the revenue shortfall. The options included the reduction of the project list, the potential for an increase in the state gas tax, the imposition of a local option sales tax for transportation purposes and the imposition of a transportation impact fee on new development.

Reducing the Project List The City reviewed several options to reduce the cost of the projects or the number of projects on the list. Included in this review was the lowering of the Level of Service from "C" to "D" this option was eliminated for not achieving the communities goal of maintaining the level of mobility enjoyed today. The adoption of a narrower street section was evaluated and rejected due to the poorer service and traffic flow that would result. Finally, the project list was reviewed for elimination of projects. The final list represents those projects needed to carry out the intent of the circulation element and meet the needs of the future.

Increased State Gas Tax The potential for additional funds from the state was evaluated. The state is considering raising the state gas tax 5 cents and then 1 cent per year for four years for a total of 9 cents. The imposition of this increase has to be approved by the voters who will vote on the item in 1990. If the state gas tax is raised, it is not known what additional revenues may be available to Visalia.

Local Option Sales Tax State law provides for the imposition of up to an additional 1% to the sales tax in a county for the purpose of generating funding for transportation. In November 1988 a 1% sales tax initiative was place on the ballot for consideration by the voters of Tulare County. That initiative failed to receive the required +50% and was defeated. Analysis of the imposition of a 1/2% sales tax suggests that Visalia would receive approximately $56 million over twenty years.

Transportation Impact Fees The potential of the imposition of a transportation impact fee for paying for those improvements associated

with new construction was evaluated. The fee structure was based on the amount of traffic generated from new development. Using projected land use and population information for 2010 the following increases in land uses were used:

- 16,700 Housing Units
- 4,700,000 Square Feet of Commercial Development
- 3,200,000 Square Feet of Office Development
- 575 Acres of Industrial Development

Using standard trip generation rates, the total number of new trips was estimated:

Housing:	16,700 units x 10.0 trips per unit = 167,000 trips
Commercial:	4,700,000 sq. ft. x 0.03 trips per sq. ft. = 141,000 trips
Office:	3,200,000 sq. ft. x 0.012 trips per sq. ft. = 38,400 trips
Industrial:	575 acres x 25.0 trips per acre = 14,400 trips

Total Daily Trips = 360,800

By dividing the revenue shortfall by the total number of new trips a cost per trip of $130.472 was generated. The fees for individual land uses would translate into the following fee structure:

- $1,302.72 per housing unit
- $ 3.92 per square foot of commercial floor space
- $ 1.56 per square foot of office floor space
- $3,264.55 per acre of industrial development

FUNDING PLAN

After careful review of the options outlined above, and considering the current conditions surrounding state and federal funding programs and the potential for a local option sales tax, the City established both a short term and a long term approach to funding the Circulation Element.

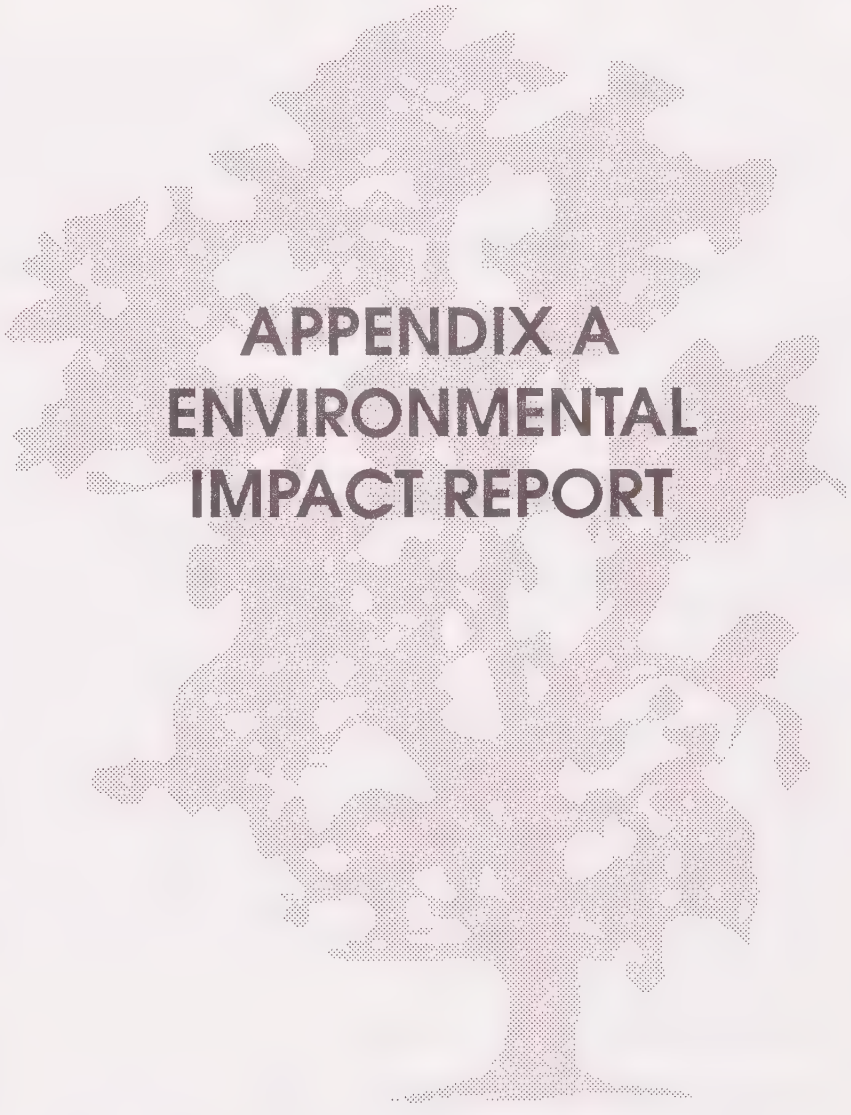
The short term program for funding projects identified in the Element includes the use of existing state gas tax funds, Federal Aid Urban funds, Transportation Development Act funds, the funds from the vehicle in-lieu fees plus the additional revenues generated from the imposition of transportation impact fees.

The City is committed to continue to use the funds generated from the existing state gas tax for maintenance of the system. The funds from the Federal Aid Urban program are committed for new construction projects. The Transportation Development Act funds will be used for both transit and new street construction, while the funds from vehicle in-lieu fees will be split evenly between street maintenance and new construction projects.

The remaining $47 million dollars neede to fund the projects is initially programmed to be funded through the imposition of a transportation impact fee. Transportation impact fees were implemented through the adoption of a city ordinance. Initially, the ordinance imposes transportation impact fees at a reduced level. In addition, the City Council provided for the waiving of fees through the budget process by augmenting the revenue that could be expected from commercial, office and industrial fees with general funds. The ordinance provides for the fee structure and the waiver of fees to be reviewed annually by the City Council and adjustments made based on the outlook on other funding sources. Copies of the adopted City Ordinance and the Transportation Fee Methodology are contained in Appendix G.

The City also committed to developing a long term funding program which would generate additional revenue sources over the long term. In adopting the Element, the City of Visalia committed to the following; encouraging the state to increase the state gas tax, the imposition of a 1/2% local sales tax for transportation purposes and the continuance of the transportation impact fee. These three new revenue sources coupled with the existing revenues compose the long term funding plan for the Circulation Element.





APPENDIX A
ENVIRONMENTAL IMPACT REPORT

VISALIA GENERAL PLAN

ENVIRONMENTAL IMPACT REPORT



INTRODUCTION

This chapter, together with Appendices B, C, and D, constitutes the Environmental Impact Report (EIR) for the City of Visalia Circulation Element. This EIR is intimately connected to the Circulation Element itself, and much of the material required by the California Environmental Quality Act (CEQA) has been provided in preceding chapters of the report. In the interests of clarity and brevity, this chapter will thus reference material in prior chapters where appropriate.

As noted in the Chapter VII, there are a considerable number of construction projects that will be needed to bring Visalia's street and highway system to the Level of Service C operation specified as Visalia's standard. (See Policy 33, page 36.) This EIR is not intended to be a project specific evaluation that covers the construction of each of those projects; most of those projects will require an environmental assessment as they are implemented. Rather, this EIR covers the more global aspects of the Circulation Element as a long-range plan for transportation in the City. The plan and policy impacts of the Circulation Element are the primary focus of this EIR.

CEQA Requirements

CEQA requires that EIRs be prepared for all projects which may have a significant impact on the environment. An EIR is an informational document, the purpose of which, according to the State CEQA Guidelines, is "... to identify significant effects of a project on the environment, to identify alternatives to the project and to indicate the manner in which such significant effects can be mitigated or avoided." The information in this chapter is to be considered by every public agency prior to its approval or disapproval of a project.

Circulation Element Assumptions

The City of Visalia Circulation Element has been prepared in a manner so as to reflect the City's current General Plan, and in particular, the Land Use Element of the General Plan. The Land Use element identifies specific boundaries for development as well as specific land use categories and locations where those categories apply. However, the element was last updated in 1976 with a target year of 1996. The City's desire was to prepare a Circulation Element what would cover transportation needs through the year 2010. The land use upon which the circulation element is based is therefore an extension of the current Land Use Element. The population and land uses basis of the Circulation Element used State

Department of Finance projections to the year 2010 as the overall control total on population. Undeveloped land within the boundaries of the current Land Use Element was used to fill-in likely population growth to the year 1996; growth beyond 1996 was added both within this boundary and to adjacent surrounding areas.

Chapter III of this document contains a more complete description of the land use and travel basis upon which the Circulation Element is based.

Relationship between the Circulation Element EIR, the Land Use Element, and Project Specific EIR's

The Circulation Element, and this EIR, do not exist in a planning and policy vacuum. Rather, they are deeply inter-related to the Land Use Element, to specific projects that will be required to implement the concepts contained in this Element, and specific land development projects. As the City of Visalia grows in the coming 25 years, the Land Use Element upon which this document is based will inevitably be changed to respond to changing conditions. It is vital that changes in the Land Use Element be accompanied by parallel investigation of the adequacy of the Circulation Element to respond to changes in the Land Use Element. It is also important that all land development proposals, and the project specific EIRs that support those proposals, be in conformance with this circulation element. Land use planning, as reflected in the Land Use Element, must therefore progress hand-in-hand with circulation planning in order to help maintain Visalia's current high quality community environment.

SUMMARY OF THE ENVIRONMENTAL IMPACT REPORT

This Environmental Impact Report focuses primarily on the Policies that will be required to support the update of the Circulation Element. As such, the detail is less than might be expected on an EIR for the implementation of a specific project. It is intended that any projects that are to be implemented as a result of the policies adopted as a part of the circulation element will be covered by project specific EIRs.

The following are the potential impacts of the adopting the Circulation Element:

Earth: The construction of new City streets and the widening of existing streets will increase the amount of surface area covered by asphalt. Some displacement of soils will result from the construction of major roadways, such as the State Route 198 freeway. The degree of impact in this area will be evaluated as part of the environmental assessment of each project as it is implemented.

Compliance with existing City codes and ordinances will reduce dust and water erosion impacts to acceptable levels as projects are implemented.

Water: The increase in road surface will result in an increase in surface water runoff.

City, County and Caltrans design guidelines for roadway facilities will assure that surface runoff and drainage are adequate for additional runoff.

Noise: The increase in traffic volumes along existing and proposed arterial and collector roadways will result in the increase of automobile noise adjacent to those roadways. In most parts of the community, the noise increases should not be beyond acceptable levels. Evaluation and possible mitigation may be required for roadway widening projects which expand a street in an already developed residential neighborhood. The Houston Avenue and Goshen Road/Murray Avenue projects are two which may require evaluation of noise impacts. Environmental evaluation of noise associated with each project will identify specific problem locations.

Any new freeways will be constructed by CALTRANS, which maintains a series of standards to reduce the impacts of noise above certain acceptable levels. In the case of the proposed State Route 198 freeway, construction is expected to occur exclusively in non-residential areas, and thus noise is not expected to be a significant concern. Further, the design of the freeway project will most likely place it below grade, a condition which inherently reduces noise.

On arterial and collector streets, noise impacts will be evaluated on a project-by-project basis. The principal mitigation measure is the existing City setback ordinance. Requiring buildings to be set-back a certain distance from the street inherently mitigates a portion of the noise impacts.

Light and Glare: Additional streets lights will be installed on all new streets proposed in the Circulation Element. Traffic signals will also be installed at major new intersections and at other existing locations within the current City boundary. These lights will increase nighttime light in areas of the community. Street lights have the positive benefit of improving safety in the community both for travelers and local residents.

Land Use: The Circulation Element has been prepared to respond to the current land use element and to land uses expected in the City through the year 2010. The nature of the projects proposed in the Circulation Element are in response to, rather in anticipation of, any proposed land uses. As such, the Circulation Element is not expected, in and of itself, to affect the way land is developed in the City.

A number of the projects, involving widening of existing streets, may require additional right-of-way in existing areas. The following sections will summarize potential project-specific environmental impacts.

Transportation: The circulation element described in Chapter V contains a number of improvements to the current circulation system which



are intended to respond to traffic demands in the year 2010. (The individual projects are listed separately in the Chapter VII.) The projects are intended to respond to areas where traffic congestion would grow to the point where, without improvements, the street would operate at Service Levels D, E, or F. To determine the effects of the proposed improvements, Tulare County's travel forecasting model was employed; year 2010 traffic was assigned to the network with the proposed improvements, and an analysis of volume/capacity and resulting service level was made for the major freeway, arterial and collector street segments within the planning area.

Table 8 in the body of the EIR documents the results of this analysis. The table documents the projected daily traffic volume in the year 2010, the volume/capacity ratio, the service level, and the improvements, if any, proposed for each segment. The table shows that with the proposed improvements, most street segments in the City will operate at Service Level C or better through the year 2010. Segments which will show a higher level of congestion are for the most part located in areas where it is deemed impractical, due to impacts on adjacent properties, to create a wider cross-section. These locations represent a relatively low percentage of the circulation system as a whole.

With the circulation system as proposed in Chapter V, the citizens of Visalia should continue to enjoy a level of mobility similar to today's for at least the next 23 years.

The projects proposed in Chapter VII represent mitigation measures which respond to the added travel demand that will occur by the year 2010.

Police and Fire Protection: Improvements to the circulation system will improve response time for all emergency equipment and services including police and fire protection.

Road Maintenance: Road maintenance costs will increase as the number of miles of City maintained streets is increased due to land development.

Energy: The future transportation system will continue to be based on the automobile and trucks for mobility. This will result in a continuing need for energy. It is expected that some efficiency increases will continue in that future vehicles will consume less energy per mile than current models. However, the growth in population is likely to be greater than the improvement in efficiency, leading to a net increase in energy requirements in future years. Energy will also be consumed in the construction of proposed transportation facilities.

Aesthetics: The City has developed a number of design concepts in newly developing areas to aid in improving the aesthetics of arterial and collector streets. Streets such as Linwood Avenue and Saint John's

Parkway have been developed with landscaped medians which have aided the aesthetics of the streets and communities. In other locations where traffic capacity has been considered more important, landscaping has not been provided.

The City would expect to review the aesthetic requirements of projects included in the circulation element on a case-by-case basis.

Recreation: Improvements to the transportation system will result in improved access to recreational facilities and an increased opportunity for non-motorized and motorized recreation.

A number of specific improvement projects will be required to implement the Circulation Element. These projects are identified in Table 6 of the Circulation Element. Potential impacts associated with these projects are discussed in general terms of the EIR; however, in keeping with the generalized nature of an Policy EIR, the specific impacts of the projects are not evaluated.

DESCRIPTION OF THE CIRCULATION ELEMENT

The Circulation Element is the "Project" for the purposes of this EIR. The element is best described by its Chapter titles:

I. **Introduction:** covers the authority and purpose of the document its relationship to the General Plan.

II. **Existing Transportation Conditions:** describes and evaluates all elements of Visalia's current transportation system, including streets and highways, public transit, railroads, air services, bicycles, trucks and goods movement. The major conclusion of the chapter is that for the most part, Visalia's current transportation and circulation system are providing a high level of mobility and service to its citizens. There are two major traffic congestion problems, along Mooney boulevard and the arterial portion of State Route 198, that provide exceptions to a system that otherwise operates at a high level of efficiency.

III. **Projection of Transportation Conditions in 2010:** describes projected land use and transportation conditions in 2010, the year chose as the target year for analysis and evaluation. In particular, the chapter identifies circulation system deficiencies projected for the year 2010, and as such sets the stage for investigation of potential improvements to the existing system. The principal conclusion of the chapter is that Visalia will still be served by a capable circulation system, but that added population, commercial, and industrial growth will create additional areas where traffic demand exceeds desirable levels. New roadways and improvements to existing facilities will be needed to maintain the current city-wide transportation service quality.

IV. **Transportation Policies:** This chapter contains all policies adopted to date by the Visalia City Council. It also contains a series of proposed new policies for consideration by the Council during the period that the Circulation Element is in the review process.

V. **Street and Highway Circulation Element:** proposes a street classification system and geometric standards for the several types of proposed classifications. The chapter also identifies those facilities that are to be defined as freeways, arterials and collectors. It discusses Central Visalia circulation, local circulation issues, and areas where final recommendations on alternative solutions to some problems have not yet been reached.

VI. **Other Modes:** This chapter outlines, at a policy level, the expectations for the evolution of transit, railroads, air services, bicycles. trucks and goods movements over the coming 25 years.

VII. **Costs and Funding:** This chapter identifies the specific projects that will be needed to alleviate traffic congestion brought on by the expected growth in the City through the year 2010. It also identifies methods by which these projects can be funded.

Emphasis on the Automobile

The emphasis of this Element on the automobile parallels the emphasis on the automobile as the major means of travel in Visalia. Automobiles account for well over 95 percent of all travel in the City, and can be expected to remain as dominant over the coming 25 years. Transit and other modes will continue to remain important in their specialized niches, but will for the period of this document continue to be a supporting rather than dominating travel mode. Accordingly, this Element focuses on the automobile, and in providing for facilities that will serve auto traffic.

Of course, other modes will not be ignored by the City. A revision to the Airport Master Plan is currently under way. A 5-year plan for public transit is prepared on an annual basis by Visalia City Coach. The needs of trucks and users of bicycles are reviewed on a periodic basis by the City. All of this planning work is intended to assure that all modes of travel are provided for as Visalia grows into the 21st century.

Areas of Sub-standard Performance

Overall, the City's Circulation system is in excellent condition, with only a few areas of concern. As described in Chapter II, Visalia at the present time has two significant transportation problems. One is the congestion occurring on State Route 198 between County Center Drive and Akers Road; the other is the congestion occurring on Mooney Boulevard between State Route 198 and Caldwell Avenue. There are also a number of "connectivity" problems associated with the fact that certain street segments, which are natural extensions of existing streets, were never constructed.

Chapter IV investigates travel conditions in 2010, when anticipated growth will add a significant level of additional traffic to Visalia's street system. Locations with projected future problems are identified in Table 5 (Page 24). Projects to solve the problems identified in Table 5 are described in Chapter VII.

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

The purpose of this section of the EIR is to review the Circulation Element's environmental setting, document probable impacts from the plans and policies contained in the element, and to discuss feasible mitigation measures that might alleviate significant impacts. An Initial Study of the impacts of the Element identified ten possible areas of concern from the 19 areas that CEQA requires to be considered in a EIR. These 10 areas are reviewed for the circulation element as a whole in this section. The following section possible areas of impact for the several improvement projects listed in Table 6. Specific project impacts are not evaluated in detail in this document due to the fact that a final design has not been prepared for any of them; detailed project impact review will be conducted as part of the implementation process for each project.

ENVIRONMENTAL IMPACTS OF THE CIRCULATION ELEMENT AS A WHOLE

EARTH

Disruptions, displacements, compaction or overcovering of the soil

The construction of new City streets and the widening of existing streets will increase the amount of surface area covered by asphalt. Some displacement of soils will result from the construction of major roadways, such as the State Route 198 freeway. The degree of impact in this area will be evaluated as part of the environmental assessment of each project as it is implemented.

Mitigation Measures

Compliance with existing City codes and ordinances will reduce dust and water erosion impacts to acceptable levels as projects are implemented.

WATER

Changes in drainage patterns or rate and amount of surface runoff

The increase in road surface will result in an increase in surface water runoff.



Mitigation Measures
City, County and Caltrans design guidelines for roadway facilities will assure that surface runoff and drainage are adequate for additional runoff.

NOISE

Increase in Existing Noise Levels
The increase in traffic volumes along existing and proposed arterial and collector roadways will result in the increase of automobile noise adjacent to those roadways. In most parts of the community, the noise increases should not be beyond acceptable levels. Evaluation and possible mitigation may be required for roadway widening projects which expand a street in an already developed residential neighborhood. The Houston Avenue and Goshen Road/Murray Avenue projects are two which may require evaluation of noise impacts. Environmental evaluation of noise associated with each project will identify specific problem locations.

Mitigation Measures
Any new freeways will be constructed by CALTRANS, which maintains a series of standards to reduce the impacts of noise above certain acceptable levels. In the case of the proposed State Route 198 freeway, construction is expected to occur exclusively in non-residential areas, and thus noise is not expected to be a significant concern. Further, the design of the freeway project will most likely place it below grade, a condition which inherently reduces noise.

On arterial and collector streets, noise impacts will be evaluated on a project-by-project basis. The principal mitigation measure is the existing City setback ordinance. Requiring buildings to be set-back a certain distance from the street inherently mitigates a portion of the noise impacts.

LIGHT AND GLARE

Additional streets lights will be installed on all new streets proposed in the Circulation Element. Traffic signals will also be installed at major new intersections and at other existing locations within the current City boundary. These lights will increase nighttime light in areas of the community. Street lights have the positive benefit of improving safety in the community both for travelers and local residents.

Mitigation Measures
None Required.

LAND USE

The Circulation Element has been prepared to respond to the current land use element and to land uses expected in the City through the year 2010. The nature of the projects proposed in the Circulation Element

are in response to, rather in anticipation of, any proposed land uses. As such, the Circulation Element is not expected, in and of itself, to affect the way land is developed in the City.

A number of the projects, involving widening of existing streets, may require additional right-of-way in existing areas. The following sections will summarize potential project-specific environmental impacts:

Mitigation Measures
None required for the Circulation Element. Mitigation for individual projects may be required depending on an environmental assessment for the project.

TRANSPORTATION

The circulation element described in Chapter V contains a number of improvements to the current circulation system which are intended to respond to traffic demands in the year 2010. (The individual projects are listed separately in the Chapter VII.) The projects are intended to respond to areas where traffic congestion would grow to the point where, without improvements, the street would operate at Service Levels D, E, or F. To determine the effects of the proposed improvements, Tulare County's travel forecasting model was employed; year 2010 traffic was assigned to the network with the proposed improvements, and an analysis of volume/capacity and resulting service level was made for the major freeway, arterial and collector street segments within the planning area.

Table 8 documents the results of this analysis. The table documents the projected daily traffic volume in the year 2010, the volume/capacity ratio, the service level, and the improvements, if any, proposed for each segment. The table shows that with the proposed improvements, most street segments in the City will operate at Service Level C or better through the year 2010. Segments which will show a higher level of congestion are for the most part located in areas where it is deemed impractical, due to impacts on adjacent properties, to create a wider cross-section. These locations represent a relatively low percentage of the circulation system as a whole.

With the circulation system as proposed in Chapter V, the citizens of Visalia should continue to enjoy a level of mobility similar to today's for at least the next 23 years.

Mitigation Measures
The projects proposed in Chapter VII represent mitigation measures which respond to the added travel demand that will occur by the year 2010.

PUBLIC SERVICES

Police and Fire Protection:
Improvements to the circulation system will improve response time for all emergency equipment and services including police and fire protection.

Mitigation Measures
None Required.

Road Maintenance:
Road maintenance costs will increase as the number of miles of City maintained streets is increased due to land development.

Mitigation Measures
None required. It is anticipated that the City's tax base should increase in proportion to the increase in population, as well as in proportion to the number of additional street-miles which require maintenance. The added costs should thus be offset by increased revenues .

ENERGY

The future transportation system will continue to be based on the automobile and trucks for mobility. This will result in a continuing need for energy. It is expected that some efficiency increases will continue in that future vehicles will consume less energy per mile than current models. However, the growth in population is likely to be greater than the improvement in efficiency, leading to a net increase in energy requirements in future years. Energy will also be consumed in the construction of proposed transportation facilities.

Mitigation Measures
None Required.

AESTHETICS

The City has developed a number of design concepts in newly developing areas to aid in improving the aesthetics of arterial and collector streets. Streets such as Linwood Avenue and Saint John's Parkway have been developed with landscaped medians which have aided the aesthetics of the streets and communities. In other locations where traffic capacity has been considered more important, landscaping has not been provided.

The City would expect to review the aesthetic requirements of projects included in the circulation element on a case-by-case basis.

Mitigation Measures
None Required.

Table 8

VISALIA CIRCULATION ELEMENT UPDATE
VOLUME/CAPACITY ANALYSIS FOR THE YEAR 2010 W/FUTURE NETWORK IMPROVEMENTS
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	FACILITY TYPE	2010 BASE LAND USE WITH REGIONAL MALL AND MOONEY REDEVELOPMENT FUTURE NEWORK WITH IMPROVEMENTS					SUMMARY OF PROPOSED IMPROVEMENTS
					FORE-CAST ADT	1986-2010 GROWTH	IMPROVED CAPACITY	VOLUME / CAPACITY	SERV LEV	
CALDWELL AVE.	ST RD 99/SHIRK RD	1.0	2 LANES	ARTERIAL	10800	192%	27000	0.40	A	STRIPE FOR FOUR LANES PLUS MEDIAN
	SHIRK RD/AKERS RD	1.0	2 LANES	ARTERIAL	10300	124%	27000	0.38	A	STRIPE FOR FOUR LANES PLUS MEDIAN
	AKERS RD/DEMAREE RD	1.0	2 LANES W/LT	ARTERIAL	13600	131%	27000	0.50	A	STRIPE FOR FOUR LANES PLUS MEDIAN
	DEMAREE RD/COUNTY CENTER DR	0.5	2 LANES W/LT	ARTERIAL	15300	50%	27000	0.57	A	STRIPE FOR FOUR LANES PLUS MEDIAN
	COUNTY CENTER DR/MOONEY	0.5	2 LANES W/LT	ARTERIAL	23800	67%	40000	0.60	B	WIDEN TO SIX LANES PLUS DUAL LEFTS
	MOONEY/DOLLNER ST	0.4	2 LANES	ARTERIAL	20500	45%	40000	0.51	A	WIDEN TO SIX LANES PLUS DUAL LEFTS
	DOLLNER ST/S COURT ST	0.9	2 LANES W/LT	ARTERIAL	21000	82%	27000	0.78	C	STRIPE FOR FOUR LANES PLUS MEDIAN
	S COURT ST/SANTA FE	0.2	2 LANES W/LT	ARTERIAL	22500	147%	27000	0.83	D *	STRIPE FOR FOUR LANES PLUS MEDIAN
	SANTA FE/BURKE ST	0.3	2 LANES	ARTERIAL	13300	90%	27000	0.49	A	WIDEN TO FOUR LANES PLUS MEDIAN
	BURKE ST/LOVERS LANE	1.2	2 LANES	ARTERIAL	12500	79%	27000	0.46	A	WIDEN TO FOUR LANES PLUS MEDIAN
WHITENDALE AVE.	LINWOOD AVENUE/DEMAREE RD	0.5	2 LANES W/LT	COLLECTOR	6700	139%	20000	0.34	A	NONE
	DEMAREE RD/COUNTY CENTER DR	0.5	2 LANES W/LT	COLLECTOR	9800	61%	20000	0.49	A	NONE
	COUNTY CENTER DR/MOONEY	0.5	2 LANES W/LT	COLLECTOR	10000	16%	22000	0.45	A	PROVIDE DUAL LEFT TURN LANES AT MOONEY
	MOONEY/S GIDDINGS AVE	0.5	2 LANES W/LT	COLLECTOR	9800	3%	22000	0.44	A	PROVIDE DUAL LEFT TURN LANES AT MOONEY
	S GIDDINGS AVE/S COURT ST	0.8	2 LANES W/LT	COLLECTOR	5500	10%	20000	0.28	A	NONE
PLAZA DRIVE	198/SHIRK	1.9	2 LANES	ARTERIAL	1800	260%	12000	0.15	A	NONE
WALNUT AVE.	SHIRK/AKERS	1.0	2 LANES	ARTERIAL	5200	622%	12000	0.43	A	NONE
	AKERS/DEMAREE RD	1.0	4 LANES W/LT	ARTERIAL	11100	68%	27000	0.41	A	NONE
	DEMAREE RD/COUNTY CENTER DR	0.5	4 LANES W/LT	ARTERIAL	16800	60%	27000	0.62	B	NONE
	COUNTY CENTER DR/MOONEY	0.5	4 LANES W/LT	ARTERIAL	23000	89%	40000	0.58	A	WIDEN TO SIX LANES PLUS DUAL LEFTS
	MOONEY/S GIDDINGS AVE	0.5	4 LANES W/LT	ARTERIAL	22000	62%	40000	0.55	A	WIDEN TO SIX LANES PLUS DUAL LEFTS
	S GIDDINGS AVE/S COURT ST	0.8	4 LANES W/LT	ARTERIAL	18600	65%	27000	0.69	B	NONE
	S COURT ST/SANTA FE AVE	0.3	4 LANES	ARTERIAL	15600	81%	24000	0.65	B	NONE
	SANTA FE AVE/PINKHAM	1.0	4 LANES	ARTERIAL	15900	152%	24000	0.66	B	
	PINKHAM/LOVERS LANE	0.5	2 LANES	ARTERIAL	14500	245%	27000	0.54	A	WIDEN TO FOUR LANES PLUS MEDIAN
TULARE AVE.	AKERS/DEMAREE ROAD	1.0	2 LANES W/MED	COLLECTOR	7200	125%	20000	0.36	A	STRIPE FOUR LANES WHEN NEEDED
	DEMAREE ROAD/WOODLAND DR	0.8	2 LANES W/MED	COLLECTOR	8100	11%	20000	0.41	A	STRIPE FOUR LANES WHEN NEEDED
	WOODLAND DR/MOONEY	0.2	2 LANES W/MED	COLLECTOR	10800	19%	24000	0.45	A	PROVIDE DUAL LEFT TURN LANES AT MOONEY
	MOONEY/S GIDDEINGS AVE	0.5	2 LANES W/LT	COLLECTOR	12600	16%	24000	0.53	A	PROVIDE DUAL LEFT TURN LANES AT MOONEY
	S GIDDINGS AVE/S COURT ST	0.5	2 LANES W/LT	COLLECTOR	12200	3%	10000	1.22	F *	NONE
	S COURT ST/BEN MADDOX WAY	1.0	2 LANES	COLLECTOR	8700	7%	10000	0.87	D *	NONE
	BEN MADDOX WAY/LOVERS LANE	0.5	2 LANES	COLLECTOR	3700	28%	10000	0.37	A	NONE
NOBLE	MOONEY/GIDDINGS	0.5	4 LANES	ONE-WAY ARTERIAL	5300	34%	22000	0.24	A	NONE
	GIDDINGS/COURT	0.7	4 LANES	ONE-WAY ARTERIAL	6100	27%	22000	0.28	A	NONE
	COURT/BEN MADDOX	0.7	4 LANES	ONE-WAY ARTERIAL	6600	22%	22000	0.30	A	NONE
	BEN MADDOX/LOVERS LANE	1.0	4 LANES	ARTERIAL	3200	53%	12000	0.27	A	NONE
STATE ROAD 198	ST RT 99/PLAZA	0.8	4 LANES	FREEWAY	48300	184%	80000	0.60	B	NONE
	PLAZA/SHIRK RD	1.5	4 LANES	EXPRESSWAY	51200	133%	80000	0.64	B	CONVERT TO FREEWAY
	SHIRK RD/AKERS RD	0.9	4 LANES	DIVIDED ARTERIAL	55500	167%	80000	0.69	B	CONVERT TO FREEWAY
	AKERS RD/COUNTY CENTER	1.2	4 LANES	DIVIDED ARTERIAL	58700	99%	80000	0.73	C	CONVERT TO FREEWAY
	COUNTY CTR/MOONEY	0.8	4 LANES	FREEWAY	44500	51%	80000	0.56	A	NONE
	MOONEY/SANTA FE AVE	2.0	4 LANES	FREEWAY	41600	51%	80000	0.52	A	NONE
	SANTA FE/LOVERS LANE	3.0	4 LANES	FREEWAY	36800	130%	80000	0.46	A	NONE

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MINERAL KING	LOVERS LANE/BEN MADDOX	1.0	2 LANES	ARTERIAL	9200	19%	12000	0.77	C	NONE
	BEN MADDOX/COURT	0.7	3 LANES	ONE-WAY ARTERIAL	6600	-7%	22000	0.30	A	NONE
	COURT/GIDDINGS	0.7	3 LANES	ONE-WAY ARTERIAL	6100	-3%	22000	0.28	A	NONE
	GIDDINGS/MOONEY	0.5	2 LANES	ONE-WAY ARTERIAL	5300	7%	15000	0.35	A	NONE
ACEQUIA	CONYER/WEST	0.2	2 LANES	ONE-WAY ARTERIAL	5400	157%	22000	0.25	A	NONE
	WEST/COURT	0.3	3 LANES	ONE-WAY ARTERIAL	8200	173%	22000	0.37	A	NONE
	COURT/BRIDGE	0.2	3 LANES	ONE-WAY ARTERIAL	7500	108%	22000	0.34	A	NONE
	BRIDGE/EDISON	0.5	2 LANES	COLLECTOR	7600	192%	22000	0.35	A	CONVERT TO 1-WAY EASTBOUND
MAIN STREET	COUNTY CENTER AVE/RANCH RD	0.3	2 LANES	ARTERIAL	21600	110%	14000	1.54	F *	MONITOR - POSSIBLE WIDENING TO 4 LANE ARTERIAL
	RANCH RD/MOONEY	0.4	2 LANES	ARTERIAL	23600	151%	14000	1.69	F *	MONITOR - POSSIBLE WIDENING TO 4 LANE ARTERIAL
	MOONEY/GIDDINGS AVE	0.5	4 LANES	ARTERIAL	18400	4%	24000	0.77	C	CONVERT TO ONE WAY EAST OF HALL
	GIDDINGS AVE/WEST	0.7	2 LANES	ARTERIAL	9400	6%	22000	0.43	A	CONVERT TO ONE WAY
	WEST/N COURT ST	0.3	2 LANES	ONE-WAY COLLECT	4200	-29%	10000	0.42	A	DOWNGRADE TO COLLECTOR
	N COURT ST/GARDEN	0.1	2 LANES	ONE-WAY COLLECT	3500	-30%	10000	0.35	A	DOWNGRADE TO COLLECTOR
	GARDEN/BEN MADDOX WAY	0.8	2 LANES	ARTERIAL	3700	-39%	12000	0.31	A	DOWNGRADE TO COLLECTOR
	BEN MADDOX WAY/MINERAL KING	1.0	2 LANES	ARTERIAL	12800	86%	24000	0.53	A	RESTRIPE FOR 4 LANES PLUS MEDIAN
CENTER STREET	BEN MADDOX/BRIDGE	0.5	2 LANES	COLLECTOR	8300	69%	22000	0.38	A	CONVERT TO ONE WAY EASTBOUND
	BRIDGE/COURT STREET	0.2	3 LANES	ONE-WAY ARTERIAL	11200	81%	22000	0.51	A	NONE
	COURT STREET/WEST	0.2	3 LANES	ONE-WAY ARTERIAL	12500	54%	22000	0.57	A	NONE
	WEST/HALL	0.5	2 LANES	ONE-WAY ARTERIAL	11600	93%	22000	0.53	A	CONVERT TO THREE LANES
GOSHEN AVENUE	ST RD 99/PLAZA	1.4	2 LANES	ARTERIAL	11400	90%	27000	0.42	A	WIDEN TO 4 LANES PLUS MEDIAN
	PLAZA/SHIRK	1.5	2 LANES	ARTERIAL	10400	60%	27000	0.39	A	WIDEN TO 4 LANES PLUS MEDIAN
	SHIRK RD/AKERS RD	1.0	2 LANES	ARTERIAL	15700	98%	27000	0.58	A	WIDEN TO 4 LANES PLUS MEDIAN
	AKERS RD/DEMAREE RD	1.0	2 LANES	ARTERIAL	23300	174%	27000	0.86	D *	WIDEN TO 4 LANES PLUS MEDIAN
	DEMAREE RD/N GIDDINGS AVE	1.5	2 LANES	ARTERIAL	17300	92%	27000	0.64	B	WIDEN TO 4 LANES PLUS MEDIAN
MURRAY AVENUE	N GIDDINGS AVE/N COURT ST	0.7	2 LANES	COLLECTOR	9500	14%	10000	0.95	E *	NONE
	N COURT ST/SANTA FE AVE	0.3	2 LANES	COLLECTOR	7500	14%	9000	0.83	D *	NONE
GOSHEN AVENUE	SANTA FE AVE/LOVERS LANE	1.5	2 LANES	COLLECTOR	2900	4%	9000	0.32	A	NONE
STATE ROAD 216/	DEMAREE/MOONEY BLVD	1.0	2 LANES	ARTERIAL	8700	112%	27000	0.32	A	WIDEN TO 4 LANES PLUS MEDIAN
HOUSTON AVE.	MOONEY BLVD/N GIDDINGS AVE	0.5	2 LANES	ARTERIAL	11100	52%	27000	0.41	A	WIDEN TO 4 LANES PLUS MEDIAN
	N GIDDINGS AVE/DINUBA	0.5	2 LANES	ARTERIAL	13000	21%	27000	0.48	A	WIDEN/RESTRIPE RD 4 LANES PLUS MEDIAN
	DINUBA/SANTA FE AVE	0.5	2 LANES	ARTERIAL	12900	42%	27000	0.48	A	RESTRIPE TO 4 LANES PLUS MEDIAN
	SANTA FE AVE/BEN MADDOX WAY	0.8	2 LANES W/LT	ARTERIAL	13700	104%	27000	0.51	A	RESTRIPE TO 4 LANES PLUS MEDIAN
	BEN MADDOX WAY/CAIN ST	0.3	2 LANES W/LT	ARTERIAL	14700	119%	27000	0.54	A	WIDEN TO 4 LANES PLUS MEDIAN
	CAIN ST/LOVERS LANE	0.9	2 LANES W/LT	ARTERIAL	13100	126%	27000	0.49	A	WIDEN TO 4 LANES PLUS MEDIAN
RIGGIN AVENUE	SR 99/PLAZA	2.0	2 LANES	ARTERIAL	15200	1420%	27000	0.56	A	WIDEN-NEW ALIGNMENT TO CONNECT TO SR 99
	PLAZA/SHIRK RD	1.5	2 LANES	ARTERIAL	7600	986%	12000	0.63	B	MONITOR - EVENTUAL WIDENING TO 4 LANES PLUS MEDIAN
	SHIRK RD/AKERS RAD	1.0	2 LANES	ARTERIAL	9000	718%	12000	0.75	C	MONITOR - EVENTUAL WIDENING TO 4 LANES PLUS MEDIAN
	AKERS RD/LINWOOD AVE	0.5	2 LANES	ARTERIAL	9200	736%	12000	0.77	C	MONITOR - EVENTUAL WIDENING TO 4 LANES PLUS MEDIAN
	LINWOOD AVE/DEMAREE RD	0.5	2 LANES	ARTERIAL	9500	459%	12000	0.79	C	MONITOR - EVENTUAL WIDENING TO 4 LANES PLUS MEDIAN
	DEMAREE RD/DINUBA	2.0	2 LANES	ARTERIAL	10800	370%	27000	0.40	A	WIDEN TO 4 LANES PLUS MEDIAN

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STATE ROUTE 99	CALDWELL AVE/BETTY DRIVE	4.0	4 LANES	FREEWAY	63000	133%	80000	0.79	C	CONVERT TO 6 LANES
PLAZA	SR 198/GOSHEN	1.0	2 LANES	ARTERIAL	12300	66%	27000	0.46	A	WIDEN TO 4 LANES PLUS MEDIAN
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	9100	78%	27000	0.34	A	WIDEN TO 4 LANES PLUS MEDIAN
SHIRK ROAD	CALDWELL/WALNUT	1.0	2 LANES	ARTERIAL	6600	230%	12000	0.55	A	NONE
	WALNUT/ ST RD 198	1.0	2 LANES	ARTERIAL	10300	415%	12000	0.86	D *	NONE
	ST RD 198/GOSHEN	1.0	2 LANES	ARTERIAL	7700	305%	12000	0.64	B	NONE
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	7700	120%	12000	0.64	B	NONE
AKERS ROAD	CALDWELL/WALNUT	1.0	2 LANES	ARTERIAL	7600	153%	27000	0.28	A	WIDEN TO 4 LANES PLUS MEDIAN
	WALNUT AVE/W TULARE AVE	0.5	4 LANES	DIVIDED ARTERIAL	9000	67%	27000	0.33	A	NONE
	W TULARE AVE/ST RD 198	0.5	4 LANES	DIVIDED ARTERIAL	16400	156%	27000	0.61	B	LOCAL WIDENING AROUND NEW INTERCHANGE
	ST RD 198/GOSHEN	1.0	2 LANES	ARTERIAL	21100	322%	27000	0.78	C	LOCAL WIDENING AROUND NEW INTERCHANGE
	GOSHEN AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	10600	664%	27000	0.39	A	NONE
DEMAREE ROAD	CALDWELL AVE/WHITENDALE AVE	0.5	4 LANES	ARTERIAL	15400	54%	27000	0.57	A	NONE
	WHITENDALE AVE/WALNUT AVE	0.5	4 LANES	ARTERIAL	16300	37%	27000	0.60	B	NONE
	WALNUT AVE/W TULARE AVE	0.5	4 LANES	ARTERIAL	16500	35%	27000	0.61	B	NONE
	W TULRE AVE/ST RD 198	0.5	4 LANES	ARTERIAL	18500	21%	27000	0.69	B	LOCAL WIDENING AROUND NEW INTERCHANGE
	ST RD 198/MILL CREEK DR	0.4	4 LANES	ARTERIAL	27200	209%	40000	0.68	B	LOCAL WIDENING AROUND NEW INTERCHANGE
	MILL CREEK DR/GOSHEN AVE	0.4	4 LANES	ARTERIAL	21100	151%	27000	0.78	C	STRIPE TO 4 LANES PLUS MEDIAN
	GOSHEN AVE/HOUSTON AVE	0.2	2 LANES	ARTERIAL	15300	147%	27000	0.57	A	WIDEN TO 4 LANES PLUS MEDIAN
	HOUSTON AVE/RIGGIN AVE	1.0	2 LANES	ARTERIAL	8000	208%	27000	0.30	A	WIDEN TO 4 LANES PLUS MEDIAN
COUNTY CENTER DR	CALDWELL AVE/WHITENDALE AVE	0.5	2 LANES W/MED	COLLECTOR	13600	147%	20000	0.68	B	MONITOR FOR POSSIBLE FOUR LANE STRIPING
	WHITENDALE3 AVE/WALNUT AVE	0.5	2 LANES W/MED	COLLECTOR	14300	72%	20000	0.72	C	MONITOR FOR POSSIBLE FOUR LANE STRIPING
	WALNUT SVE/W TULARE AVE	0.5	2 LANES W/MED	COLLECTOR	12400	44%	20000	0.62	B	MONITOR FOR POSSIBLE FOUR LANE STRIPING
	W TULARE AVE/CAMPUS DR	0.3	2 LANES W/MED	COLLECTOR	11400	28%	20000	0.57	A	MONITOR FOR POSSIBLE FOUR LANE STRIPING
	CAMPUS DR/SR 198	0.2	4 LANES	COLLECTOR	13100	26%	20000	0.66	B	NONE
MOONEY	LIBERTY AVE/CALDWELL AVE	1.0	4 LANES	ARTERIAL	37500	153%	50000	0.75	C	WIDEN SOUTH OF CALDWELL
	CALDWELL AVE/WHITENDALE AVE	0.5	4 LANES W/MED	DIVIDED ARTERIAL	40100	167%	50000	0.80	D *	WIDEN TO 6 LANE PLUS MEDIAN W/DUAL LEFT TURN LANE
	WHITENDALE AVE/WALNUT AVE	0.5	4 LANES W/MED	DIVIDED ARTERIAL	43800	68%	50000	0.88	D *	WIDEN TO 6 LANE PLUS MEDIAN W/DUAL LEFT TURN LANE
	WALNUT AVE/W TULARE AVE	0.5	4 LANES W/MED	DIVIDED ARTERIAL	44400	43%	50000	0.89	D *	WIDEN TO 6 LANE PLUS MEDIAN W/DUAL LEFT TURN LANE
	W TULARE AVE/ST RD 198	0.5	4 LANES W/MED	DIVIDED ARTERIAL	42300	51%	50000	0.85	D *	WIDEN TO 6 LANE PLUS MEDIAN W/DUAL LEFT TURN LANE
	ST RD 198/MAIN ST	0.2	4 LANES W/MED	DIVIDED ARTERIAL	22200	48%	50000	0.44	A	WIDEN TO 6 LANE PLUS MEDIAN W/DUAL LEFT TURN LANE
HALL	GOSHEN AVE/MAIN ST	0.3	2 LANES	COLLECTOR	8000	11%	15000	0.53	A	MAKE ONE-WAY COUPLET WITH GIDDINGS
GIDDINGS	WHITENDALE/WALNUT	0.5	2 LANES W/MED	COLLECTOR	8500	11%	10000	0.85	D *	NONE
	WALNUT/TULARE	0.5	2 LANES	COLLECTOR	9800	2%	10000	0.98	E *	NONE
	TULARE/ST RT 198	0.5	2 LANES	COLLECTOR	10300	32%	9000	1.14	F *	NONE
	ST RT 198/MURRAY	0.5	2 LANES	COLLECTOR	8000	31%	15000	0.53	A	MAKE ONE-WAY COUPLET WITH HALL
LOCUST STREET	TULARE AVE/NOBLE	0.4	2 LANES	ONE-WAY ARTERIAL	9700	76%	15000	0.65	B	CONNECTOR TO COURT
	NOBLE/OAK ST	0.4	3 LANES	ONE-WAY ARTERIAL	15000	103%	22000	0.68	B	NONE
	OAK ST/NW SECOND ST	0.3	2 LANES	ONE-WAY ARTERIAL	14600	85%	22000	0.66	B	NONE

Table 8

VISALIA CIRCULATION ELEMENT UPDATE
VOLUME/CAPACITY ANALYSIS FOR THE YEAR 2010 W/FUTURE NETWORK IMPROVEMENTS
DKS ASSOCIATES MARCH, 1989

ROADWAY	FROM/TO	LENGTH (mi.)	EXISTING STRIPING / GEOMETRICS	FACILITY TYPE	2010 BASE LAND USE WITH REGIONAL MALL AND MOONEY REDEVELOPMENT FUTURE NEWORK WITH IMPROVEMENTS: FORE-CAST ADT	1986-2010 GROWTH	IMPROVED CAPACITY	VOLUME / CAPACITY	SERV LEV	SUMMARY OF PROPOSED IMPROVEMENTS
COURT STREET	CALDWELL AVE/WHITENDALE AVE	0.5	2 LANES W/MED	ARTERIAL	13400	120%	20000	0.67	B	NONE
	WHITENDALE AVE/WALNUT AVE	0.5	2 LANES W/MED	ARTERIAL	12300	27%	20000	0.62	B	NONE
	WALNUT AVE/W TULARE AVE	0.5	2 LANES	ARTERIAL	12900	23%	20000	0.65	B	WIDEN TO FOUR LANE UNDIVIDED
	W TULARE AVE/ST RD 198	0.5	2 LANES	ONE-WAY ARTERIAL	11700	67%	15000	0.78	C	NONE
	ST RD 198/CENTER	0.3	3 LANES	ONE-WAY ARTERIAL	12500	69%	22000	0.57	A	NONE
	CENTER/NE THIRD	0.4	2 LANES	ONE-WAY ARTERIAL	14600	85%	22000	0.66	B	NONE
NW SECOND ST.	LOCUST ST/HOUSTON AVE	0.4	2 LANES	ONE-WAY ARTERIAL	5500	15%	15000	0.37	A	NONE
NW THIRD ST.	COURT ST/HOUSTON ST	0.4	2 LANES	ONE-WAY ARTERIAL	5500	15%	15000	0.37	A	NONE
NE THIRD ST.	COURT ST/HOUSTON ST	0.4	2 LANES	ONE-WAY ARTERIAL	6500	76%	12000	0.54	A	NONE
SANTA FE	CALDWELL/WALNUT	1.0	2 LANES	COLLECTOR	7000	25%	10000	0.70	C	NONE
	WALNUT/TULARE	0.5	2 LANES	COLLECTOR	8300	22%	10000	0.83	D *	NONE
	TULARE/ST RD 198	0.5	2 LANES	COLLECTOR	5000	23%	9000	0.56	A	CONNECTOR TO BRIDGE
	ST RD 198/CENTER	0.3	2 LANES	COLLECTOR	1900	73%	9000	0.21	A	NONE
	CENTER/HOUSTON	0.7	2 LANES	COLLECTOR	4900	81%	9000	0.54	A	CONNECTOR TO BRIDGE
BEN MADDOX WAY	CALDWELL/WALNUT	1.0		ARTERIAL	11500		27000	0.43	A	EXTEND AS 4 LANE DIVIDED ARTERIAL
	WALNUT/198	1.0		ARTERIAL	17000		27000	0.63	B	EXTEND AS 4 LANE DIVIDED ARTERIAL
	ST RT 198/CENTER	0.3	4 LANES	ARTERIAL	22800	27%	27000	0.84	D *	NONE
	CENTER/GOSHEN	0.2	4 LANES	ARTERIAL	22300	32%	27000	0.83	D *	NONE
	GOSHEN AVE/HOUSTON AVE	0.5	4 LANES W/LT	ARTERIAL	23600	71%	27000	0.87	D *	NONE
	HOUSTON/ST. JOHNS	0.5	4 LANES	ARTERIAL	15000	67%	24000	0.63	B	NONE
MCAULIFF	MINERAL KING/GOSHEN	0.5		ARTERIAL	8500		27000	0.31	A	EXTEND AS 4 LANE DIVIDED ARTERIAL
	GOSHEN/HOUSTON	0.5		ARTERIAL	7000		27000	0.26	A	EXTEND AS 4 LANE DIVIDED ARTERIAL
	HOUSTON/ST. JOHNS	0.3	2 LANES W/MED	ARTERIAL	5600	44%	27000	0.21	A	WIDEN EAST SIDE TO 4 LANE DIVIDED
LOVERS LANE	CALDWELL AVE/WALNUT AVE	1.0	4 LANES	DIVIDED ARTERIAL	9400	2%	27000	0.35	A	NONE
	WALNUT AVE/ST RD 198	1.0	4 LANES	DIVIDED ARTERIAL	15000	15%	27000	0.56	A	NONE
	ST RD 198/MILL CREEK	0.5	4 LANES	ARTERIAL	20000	90%	27000	0.74	C	WIDENING TO BE COMPLETED BY 9/87
	MILL CREEK/HOUSTON AVE	0.5	4 LANES	DIVIDED ARTERIAL	16300	81%	27000	0.60	B	NONE

RECREATION

Improvements to the transportation system will result in improved access to recreational facilities and an increased opportunity for non-motorized and motorized recreation.

Mitigation Measures
None Required.

AIR QUALITY

Tulare County is located in the center of a large air basin formed by the Sierra Nevada and Coast mountain ranges. Over the last several years, this basin has been the subject of a significant level of concern for air quality. High pressure cells are common to the basin and create periods of poor ventilation and air stagnation. This condition coupled with the continuing increase in population has lead to significant air quality problems.

The Environmental Protection Agency has established criteria for the setting of the National Ambient Air Quality Standards (NAAQS) for pollution allowed in ambient air. Primary standards are intended to safeguard human health, allowing for a margin of safety to protect sensitive members of the population such as children, the elderly and people with respiratory ailments. Secondary standards are set at lower concentrations to protect the public welfare by preventing injury to agricultural crops, livestock and property damage. The Federal Clean Air Act allows states to conduct their own research and to develop their own standards.

Tulare County currently exceeds the NAAQS for two criteria pollutants; Ozone (O3) and Particulate Matter (PM10). Therefore, Tulare County is designated as a non-attainment area for those two pollutants.

Ozone is formed photochemically from the burning of fuels and generally the high level concentrations occur during the summertime when air inversions trap air in the basin. The major source of particulate matter are agricultural operations, planned and unplanned fires, unpaved road dust and entrained road dust.

The following charts delineate the existing conditions in the Visalia area and the Federal and State standards for air quality.

Table 9
Tulare County Ambient Air Quality (Visalia)
Ozone (ppm)

Year	Mean Daily Max.	Mean Daily Max.	Number of Exceedances > 0.12 Hours	Number of Exceedances > 0.12 Days	Number of Exceedances > 0.10 Hours	Number of Exceedances > 0.10 Days
1982	.13	.058	5	3	147	43
1983	.14	.060	4	4	161	46
1984	.14	.061	2	2	133	46
1985	.14	.062	2	1	97	38
1986	.16	.073	23	12	406	96

Table 10
Tulare County Ambient Air Quality (Sequoia National Park)
Ozone (ppm)

Year	Mean Daily Max.	Mean Daily Max.	Number of Exceedances > 0.12 Hours	Number of Exceedances > 0.12 Days	Number of Exceedances > 0.10 Hours	Number of Exceedances > 0.10 Days
1982	.15	.098	25	10	467	67
1983	—	—	—	—	—	—
1984	.13	.095	2	1	104	25
1985	.14	.088	4	4	313	64
1986	.14	.099	2	1	296	38

Table 11
Tulare County Ambient Air Quality (Visalia)
Particulate Matter (-10 micron)

Year	High	Low	Arith. Mean	Number of Samples > 50	Number of Samples > 150	Number of Samples # of obs.
1985	241	24	68	41	1	56
1986	149	12	59	30	0	55
1987	113	16	60	38	0	58

Ambient air quality standards have been promulgated by California Air Resources Board and the Environmental Protection Agency. Although the Tulare County Air Pollution Control District is responsible for maintaining both the state and federal standards, the federal standards are used to determine a district's attainment status. The state and federal standards appear in Table 12.

Table 12
California and National Air Quality Standards

Concentration Pollutant	Averaging Time	California Standard	National Standard
Oxidant	1 hour	0.10 ppm	—
Ozone	1 hour	—	0.12 ppm
Carbon Monoxide	8 hour	9.0 ppm	9.0 ppm
	1 hour	20 ppm	35 ppm
Nitrogen Dioxide	Annual Avg.	—	0.05 ppm
	1 hour	0.25 ppm	—
Sulfur Dioxide	Annual Avg.	—	0.03 ppm
	24 hour	0.05 ppm	0.14 ppm
	1 hour	0.25 ppm	—
Particulate Annual Matter (PM 10)	Arithmetic Mean	30 ug/m	50 ug/m
	24 hour	50 ug/m	150 ug/m

The issue of air quality impacts of the Visalia Circulation Element can be divided into two areas, short-term impacts and long term impacts. Short term impacts such as dust created by road construction and the disposal of road construction materials through burning can be mitigated. The use of dust control measures contained in City Ordinance will control the impacts of construction generated dust. The prohibition of burning of road construction materials is one method of mitigating burning impacts.

Long term impacts associated with the implementation of the Visalia Circulation Element are strongly effected by the overall condition of the San Joaquin Valley Air Basin. The implementation of the projects outlined in the Element will result in the reduction of traffic congestion and corresponding delays and a reduction in idling time. However, the overall air quality will be a combination of factors from all areas in the Air Basin.



The context with which the Visalia Circulation Element has been prepared is one small part of the overall analysis of air quality in the San Joaquin Valley. This context is also made more difficult by the lack of a complete data base from which to assess improvements to the circulations system. Recognition of this information shortage has lead to the initiation of a multi-county air quality study to develop the necessary data base. Tulare County will play a key role in this study and the results should provide new understandings on the long term relationship of circulation to air quality in the San Joaquin Valley.

Visalia can commit within the context of this document to develop a circulation system that provides for efficient movement of people and goods through improvements to the system and the effective management of the system. To this end the community is committing a significant level of resources to the improvement of the existing streets and highways to provide for a more efficient system. In addition, the document suggests that appropriate transportation system management strategies should be used to mitigate traffic and parking congestion.

Transportation system management includes a wide variety of transportation strategies and techniques used to maximize the existing street in lieu of the construction of an expanded facility. Transportation system management focuses on controlling travel demand during peak periods of the day. By shifting or limiting demand, streets and highways can operate more efficiently during those peak hours. The following is a list of transportation system management strategies that may be used in Visalia to mitigate traffic or parking demand:

Transportation System Management Strategies

- Flex-time work hours
- Four day work weeks
- Car and van pooling
- Public transit
- Bicycling and walking
- Parking management
- Land use planning of travel demand

Air quality will continue to be an issue in Tulare County over the next several years. The County Board of Supervisors recognizing the impacts the current conditions have on the agricultural economy, have implemented a vehicle inspection program. The California Air Resources Board predicts that this program will reduce vehicle emissions by 25% and will also improve vehicle performance and reduce fuel consumption. This program will make a significant contribution to improving the air quality in Tulare County and Visalia.

This type of regional or sub-state program is the key to achieving compliance with air quality standards. The Visalia Circulation Element provides for needed improvements to the street and highway system to

increase the efficiency of the network, commits the community to transportation system management where appropriate, continues the development of a viable public transit service and promotes the development of a comprehensive bicycle system. Each of these components added to the regional or sub-state efforts will have positive impacts on the air quality in the San Joaquin air basin.

POTENTIAL PROJECT SPECIFIC IMPACTS

The material in this section identifies potential environmental impacts which might occur as a result of specific improvement projects proposed in this Element. This information is provided as general guidance for the evaluation of whether each project is appropriate as policy. Complete evaluation of all environmental issues will be conducted for each project at the time that a final design is prepared and the project is ready for implementation.

PROJECT: Mooney Boulevard between State Route 198 and Caldwell Avenue

This proposed project would widen Mooney Boulevard to provide one additional through lane in each direction, and widen the median so that an additional left turn lane could be provided at major signalized intersections. It is anticipated that the right-of-way would need to be increased from the current 110 feet to 146 feet. Potential areas of impact include:

Earth: The widening of Mooney Boulevard will increase the amount of surface area covered by asphalt. Some movement of earth will be required during the construction project. No significant impacts are anticipated.

Water: There may be a slight increase in surface water runoff due to the increase in paved surface. Detailed design will determine the adequacy of in-place sewer facilities to handle the total runoff. Some relocation of sewers may be necessary as part of the construction project. No significant impacts are anticipated.

Noise: The increase in traffic volumes projected for Mooney Boulevard for the year 2010 will lead to increased noise levels on the street. Given the current high volumes of traffic and noise, it is unlikely that the absolute increase in noise will be a perceptible impact. Depending on the final design, it is possible that the curb line may be closer to existing commercial establishments than at present, and that local increases in noise may occur. The environmental studies to be conducted at the time of project implementation will determine if these impacts are significant.

Light and Glare: Overall light levels are expected to remain at current levels; existing lighting will be moved from its current location to the relocated curb line. As with noise, the relocated lighting may bring a higher level of light and glare to existing commercial establishments fronting the street

Land Use: Two types of land use impacts can be expected along Mooney Boulevard as a result of this project. The project will require an additional 36 feet of right-of-way to permit the widening. Depending on the final design and the timing of the project, some existing buildings may need to be acquired and removed to make the widening possible; existing off-street parking may also be reduced as a result of the project. Where and whether such parcels are required will depend on whether right-of-way is taken equally from both sides of the street, or alternatively whether the alignment is offset so as to minimize specific parcel acquisition. Building acquisition will also depend on whether properties are acquired in a project-oriented acquisition process, or instead are acquired as ownership and/or use changes. In the latter case, the right-of-way could be acquired as part of a renovation, renewal or complete change in the use of individual parcels. Thus the impacts on specific properties cannot be known until the final design is complete and the timing of the project is known.

The second land-use impact relates to the community-wide goal of concentrating commercial activity on the Mooney corridor. Without the widening project, traffic congestion is expected to become so severe that it will limit the intensity of land use than can be served along this corridor. There is thus a clear relationship between land use planning and circulation planning that is affected by this project. The negative impacts of parcel-specific impacts listed above can be partially offset by the contribution to the commercial and economic vitality of the community as a whole which may be dependent on this project.

Transportation: The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Mooney Boulevard with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Mooney	Liberty Ave./ Caldwell Ave.	37500	37000	1.01	F
	Caldwell Ave./ Whitendale Ave.	40100	40000	1.00	F
	Whitendale Ave./ Walnut Ave.	43800	40000	1.10	F
	Walnut Ave./ W. Tulare Ave.	44400	40000	1.11	F
	W. Tulare Ave./ St. Rt. 198	41300	40000	1.03	F
	St. Rt. 198/ Main St.	22200	40000	0.56	A

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Mooney	Liberty Ave./ Caldwell Ave.	37500	50000	0.75	C
	Caldwell Ave./ Whitendale Ave.	40100	50000	0.80	D
	Whitendale Ave./ Walnut Ave.	43800	50000	0.88	D
	Walnut Ave./ W. Tulare Ave.	44400	50000	0.89	D
	W. Tulare Ave./ St. Rt. 198	41300	50000	0.83	D
	St. Rt. 198/ Main St.	22200	50000	0.44	A

Public Services: Improvements to Mooney Boulevard will improve response time for all emergency equipment and services including police and fire protection. Road maintenance costs will increase as the number of miles of City maintained streets is increased.

Energy: Energy will be consumed during the construction process. Additional energy will be consumed as a result of increased population and travel in the City; this is a result of population growth and is more related to land use changes than to the Mooney Boulevard project. Some potential energy savings can be anticipated in the long run due to reduced congestion and delay on Mooney Boulevard.

Aesthetics: No significant changes to the general appearance of the Mooney Boulevard corridor are anticipated as a result of this project.

Recreation: No significant impacts on recreational opportunities or facilities are anticipated as a result of this project.

PROJECT: Caldwell at Mooney

This project would widen Caldwell Avenue for 700 feet to the west of Mooney Boulevard and 1000 to the east to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The right-of-way would be widened to 126 feet at its maximum point, requiring some right-of-way acquisition. The 700 feet is inclusive of the taper between the existing and widened cross-sections. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: The completion of this project will improve air quality by reducing emissions associated with delays at the Mooney and Caldwell intersection. Improvements to the signal timing in conjunction with this project will assist in eliminating excessive idling.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal Life: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: The construction of this project may result in disruption of adjacent businesses. Detailed impacts to adjacent properties will be defined after design work has been completed. Special concern will be given to disruption of the existing service stations located in the northeast and southwest quadrants.

Natural Resources: No significant impacts are anticipated.

Risk of upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The completion of these improvements to the Caldwell / Mooney intersection will result in an increase in the capacity of this intersection. This is in response to Caldwell's designation as an arterial street. Traffic will be encouraged to use this arterial for east/west mobility. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Caldwell with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Caldwell	County Center Dr./ Mooney	26800	27000	0.99	E
	Mooney/ Dollner St..	23500	15000	1.57	F

2010 Forecast with Project

Roadway	From/To	Forecast ADT*	Improved Capacity	Volume/ Capacity	Service Level
Caldwell	County Center Dr./ Mooney	23800	40000	0.60	B
	Mooney/ Dollner St..	20500	40000	0.51	A

*Note: Reduction in Forecast Traffic is due to other improvements in the vicinity.

Public Services: No significant impacts are anticipated.

Energy: The project will result in a reduction in idling time and will therefore improve vehicle fuel consumption.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Walnut at Mooney

Walnut Avenue would be widened for 700 feet on either side of Mooney Boulevard to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The right-of-way would be widened to 126 feet at its maximum point, requiring some right-of-way acquisition. The 700 feet is inclusive of the taper between the existing and widened cross-sections. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: The completion of this project will improve air quality by reducing emissions associated with delays at the Mooney and Walnut intersection. Improvements to the signal timing in conjunction with this project will assist in eliminating excessive idling.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: The construction of this project will result in disruption of adjacent businesses. Detailed impacts to adjacent properties will be defined after design work has been completed. Disruption or elimination of adjacent land uses will be necessary for the development of this project. The most significant possible impacts associated with the project would result in the elimination of the existing land uses on one side of the street.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The completion of these improvements to the Walnut and Mooney intersection will result in the increase in the capacity of this intersection. This is in response to Walnut's designation as an arterial street. Trips will be encouraged to use this arterial for east/west mobility. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Walnut with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Walnut	County Center Dr./ Mooney	23000	27000	0.89	D
	Mooney/ Giddings Ave.	19600	27000	0.73	C

2010 Forecast with Project

Roadway	From/To	Forecast ADT*	Improved Capacity	Volume/ Capacity	Service Level
Walnut	County Center Dr./ Mooney	23000	40000	0.58	A
	Mooney/ Giddings Ave.	22000	40000	0.55	A

Public Services: No significant impacts are anticipated.

Energy: The project will result in a reduction in idling time and will therefore improve vehicle fuel consumption.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Tulare at Mooney

As with the other major cross-streets of Mooney Boulevard, Tulare Avenue would be widened for 700 feet on either side of Mooney Boulevard to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The right-of-way would be widened to 126 feet at its maximum point, requiring some right-of-way acquisition. The 700 feet is inclusive of the taper between the existing and widened cross-sections. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: The completion of this project will improve air quality by reducing emissions associated with delays at the intersection. Improvements to the signal timing in conjunction with this project will assist in eliminating excessive idling.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: The construction of this project will result in disruption of adjacent businesses. Detailed impacts to adjacent properties will be defined after design work has been completed. Disruption or elimination of adjacent land uses will be necessary for the development of this project. The most significant possible impacts associated with the project would result in the elimination of the existing land uses on the south side of the street. This would result in the elimination of a oil bulk processing plant, a convenience store, a bicycle shop and several homes.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The completion of these improvements to the intersection will result in an increase in the capacity of this intersection. This will provide a higher level of service to the community. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Tulare Avenue with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Tulare	Woodland Dr./ Mooney	13600	14000	0.97	E
	Mooney/ Giddings Ave.	13200	14000	0.94	E

2010 Forecast with Project

Roadway	From/To	Forecast ADT*	Improved Capacity	Volume/ Capacity	Service Level
Walnut	Woodland Dr./ Mooney	10800	24000	0.45	A
	Mooney/ Giddings Ave.	12600	24000	0.53	A

*Note: Reduction in Forecast Traffic is due to other improvements in the vicinity.

Public Services: No significant impacts are anticipated.

Energy: The project will result in a reduction in idling time and will therefore improve vehicle fuel consumption.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Whitendale at Mooney

This project would widen Whitendale Avenue for 700 feet on either side of Mooney Boulevard to provide for two through lanes and one right turn lane in each direction, and a median with dual left turn lanes for access to Mooney Boulevard. The 700 feet is inclusive of the taper between the existing and widened cross-sections. The right-of-way would be widened to 126 feet at its maximum point, requiring some right-of-way acquisition. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: The completion of this project will improve air quality by reducing emissions associated with delays at the intersection. Improvements to the signal timing in conjunction with this project will assist in eliminating excessive idling.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: The construction of this project will result in disruption of adjacent businesses. Detailed impacts to adjacent properties will be defined after design work has been completed.

Disruption or elimination of adjacent land uses will be necessary for the development of this project. The required right-of-way would probably be acquired from both sides of the street, but the determination of this process will await a final design of the cross-section. Such acquisition could result in the elimination of one gas existing gas station; other impacts would be relatively minor.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The completion of these improvements to the intersection will result in the increase in the capacity of this intersection. This will provide a higher level of service to the community. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Whitendale Avenue with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Whitendale	County Center/ Mooney	10000	20000	0.50	A
	Mooney/ Giddings Ave.	9600	20000	0.48	A

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Whitendale	County Center/ Mooney	10000	22000	0.45	A
	Mooney/ Giddings Ave.	9600	22000	0.44	A

Public Services: No significant impacts are anticipated.

Energy: The project will result in a reduction in idling time and will therefore improve vehicle fuel consumption.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: State Highway 198 Freeway Upgrade

The State of California is currently developing project alternatives and an environmental impact report of those alternatives for State Route 198 between County Center Drive and State Route 99. The following discussion offers a description of the known or potential impacts associated with the conversion of State Route 198 to a freeway. Potential areas of impact include:

Earth: This project will result in significant displacement of earth associated with the construction of overpasses or underpasses.

Air: Short term dust impacts during construction may be significant. The construction of the freeway will result in a reduction in automobile emissions by reducing idling time at the at-grade intersections.

Water: Persian Ditch bisects the freeway alignment near Akers Road. The crossing of this facility will be a design issue as will the increase in water run-off associated with the freeway.

Plant Life: Valley oaks located within the existing median and along the northern edge of the right-of-way will need to be removed to establish the necessary clear zones. Some agricultural acreage will need to be removed from production for additional freeway right-of-way.

Animal: No significant impacts are anticipated.

Noise: It is anticipated that the corridor will see significant increases in traffic over the next twenty years. This will result in a significant increase in the level of vehicle noise in the vicinity of the existing expressway. The construction of the freeway will assist in mitigating the this anticipated noise impact. Special attention will be given to residential areas near the freeway.

Light and Glare: No significant impacts are anticipated.

Land Use: The specific land use impacts associated with the alternative freeway alignments will be discussed as part of the alternative analysis and environmental assessment process. Significant disruptions and elimination of activities can be anticipated under all alternatives.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: The construction of the freeway will result in the loss of some housing.

Transportation/Circulation: The completion of the freeway will improve the overall circulation of the community. Anticipated traffic volumes will operate at a higher level of service. Mobility in and out of the community will be greatly increased.

Public Services: Emergency response times will be decreased as access to the westerly portions of town is improved.

Energy: The improved flow of traffic through the freeway will improve the fuel efficiency of the circulation system in this section of the community. Improvement in the traffic movements associated with cross traffic can also be expected.

Utilities: A sewer line crosses under the freeway alignment at County Center Drive. This sewer will be a design issue during the development of alternative alignments. Utilities in the vicinity of the freeway will need to be relocated as part of the project.

Human Health: No significant impacts are anticipated.

Aesthetics: The development of the freeway and its associated freeway standards will remove the valley oaks within the existing right-of-way.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Caldwell - Fairway to Lover's Lane

The project would widen Caldwell Avenue to the standard arterial width of 110 feet to provide two lanes for through traffic and a right turn/transit/parking lane in each direction and a left turn median. The project involves spot widening, as portions of this sections have been widened to the ultimate pavement width already. The project will allow Caldwell Avenue to serve as a principal east-west arterial street in the southern portion of the City. Widening to these standards will also provide capacity for potential increased intensity land uses on the south side of the street east of Mooney Boulevard. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: The completion of this project will improve air quality by improving the level of service in this section of Caldwell.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: The projected traffic increases on this arterial will extend the limits of the 65 dBa by the year 2010. This extension will expose homes near the roadway to noise levels higher than today. These homes have been developed with noise mitigation measures such as side or rear-on orientation and setback requirements. Future residential development will continue these measures.

Light and Glare: No significant impacts are anticipated.

Land Use: The development of Caldwell to full arterial standards will have no growth inducing impacts from Fairway to Santa Fe. This area has already developed on the north side of the section and the completion of the roadway is in response to adjacent development and the overall arterial pattern of the community.

The development of Caldwell from Santa Fe to Lover's Lane will be in response to the increase in intra-regional and intra-city traffic on this section. The anticipated improvements may have some growth inducing impacts to adjacent land, depending on the timing of development.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: The potential exists for the need to relocate housing along the existing right-of-way at the time of construction of the full arterial. The precise impacts will not be full known until final designs are available.

Transportation/Circulation: The community will benefit from the completion of this major arterial. The project will enhance the east/west circulation and provide improved access to Mooney Boulevard, east and northeast Visalia. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Caldwell Avenue with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Caldwell	Dollner St./ S. Court St.	24000	15000	1.60	F
	S. Court St./ Santa Fe Ave.	25500	15000	1.70	F
	Santa Fe Ave./ Pinkham	16300	12000	1.36	F
	Pinkham/ Lover's Lane	15500	12000	1.29	F

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Caldwell	Dollner St./ S. Court St.	21000	27000	0.78	C
	S. Court St./ Santa Fe Ave.	22500	27000	0.83	D
	Santa Fe Ave./ Pinkham	13300	27000	0.49	A
	Pinkham/ Lover's Lane	15500	27000	0.57	A

Public Services: No significant impacts are anticipated.

Energy: Improvement to the level of service on Caldwell will improve the fuel efficiency of vehicles operating on this roadway.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Walnut - Pinkham to Lover's Lane

This project would widen Walnut Avenue to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane on each side, and a left turn median. This represents a continuation of the current cross-section of Walnut Avenue west of Pinkham. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: No significant impacts are anticipated.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: This project will be completed in association with development of adjacent property. Timing of roadway construction will be a function of conversion of adjacent property to urban uses.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The completion of Walnut to full arterial standards will complete this arterial to Lover's Lane. The proposed widening will improve the level of service on this roadway. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Walnut Avenue with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Walnut	Pinkham/ Lover's Lane	14500	12000	1.21	F

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Imporved Capacity	Volume/ Capacity	Service Level
Walnut	Pinkham/ Lover's Lane	14500	27000	0.54	A

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Goshen - Plaza Drive (Road 80) to Mooney Blvd.

The project would widen this portion of Goshen Avenue to the standard arterial width to provide two lanes in each direction for through traffic and a left turn median. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: The construction of Goshen to arterial standards will improve the level of service of this major link to the Visalia industrial area. This improvement will improve air quality by reducing delays and idling time.

Water: No significant impacts are anticipated.

Plant Life: The construction of this arterial may effect existing trees located along the right-of-way between Mooney and Demaree. The final design will further define if any such impacts will result from the project.

Animal: No significant impacts are anticipated.

Noise: The projected traffic increases on this arterial will exceed the limits of the 65 dBa by the year 2010. This extension will expose homes near the roadway to noise levels higher than today. These homes have been developed with noise mitigation measures such as side or rear-on orientation and setback requirements. Future residential develop will continue these measures. Noise impacts to the industrial uses west of Akers are expected to be minimal.

Light and Glare: No significant impacts are anticipated.

Land Use: The project will complete the Goshen arterial in order to facilitate the anticipated growth in traffic to the industrial area of Visalia. The roadway will also provide access to residential areas under development east of Akers.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The project will complete a significant east/west arterial. Improved access and circulation to west Visalia will be the result of the project. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Goshen Avenue with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Goshen	Plaza/ Shirk Rd.	12400	12000	1.03	F
	Shirk Rd./ Akers Rd.	17700	12000	1.48	F
	Akers Rd./ Demaree Rd.	25300	27000	0.94	E
	Demaree Rd./ Giddings Ave.	17400	12000	1.44	F

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Goshen	Plaza/ Shirk Rd.	10400	27000	0.39	A
	Shirk Rd./ Akers Rd.	15700	27000	0.58	A
	Akers Rd./ Demaree Rd.	23300	27000	0.86	D
	Demaree Rd./ Giddings Ave.	17300	27000	0.64	B

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Goshen/Murray - Mooney to Santa Fe

This portion of Goshen and Murray is developed with residential frontage and rather narrow setbacks. It is not practical to widen to a full collector or arterial cross-section in this segment. The proposal is to widen within existing right-of-way to provide for two lanes in each direction with left turn bays at key intersections.

This project will have significant impacts on surrounding land uses. It can be expected that some land uses will be eliminated in order to provide adequate right-of-way. It is necessary to develop a plan line for this project in order to fully assess the impacts. At the completion of that process the impacts of alternative alignments can be assessed.

This project shall give special consideration during the design phase to the Historic District and areas that will be impacted.

PROJECT: Goshen Avenue - Santa Fe to Lover's Lane

The project would widen this portion of Goshen Avenue to the standard arterial width of 84 feet to provide two lanes in each direction for through

traffic and a left turn median. Goshen Avenue would be realigned in the vicinity of Lover's Lane to create a four-leg intersection at Mill Creek Parkway.

The environmental impacts of this project were discussed in the Environmental Impact Report for the Northeast Visalia Specific Plan (1987). That EIR is incorporated by reference.

PROJECT: Riggin Avenue - State Route 99 to Dinuba Boulevard

To complete the new access between State Route 99 and Goshen Avenue, Riggin Avenue would be realigned to connect directly to Betty Drive, the location of an existing interchange on SR 99. An overpass of the Southern Pacific Railroad would be constructed as part of this project to reduce delays and improve safety conditions. The project would construct Riggin to the arterial standard of 110 feet. To respond to expected new residential growth in the northern part of the City, Riggin Avenue east of Route 99 would be widened to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane on each side, and a left turn median.

The limits of environmental impacts of this project, if any, cannot be defined without further design details. An environmental assessment will be needed before the project can be implemented.

PROJECT: Plaza Drive - State Route 198 to Riggin Avenue

Traffic forecasts indicate that the desirable service level for this segment of Plaza Drive will be exceeded by the year 2010. The project would widen Plaza Drive in this segment to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane, and a left turn median. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: No significant impacts are anticipated.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: This project will be completed with the development of adjacent land uses. This development is expected to follow the guidelines of the West Visalia Specific Plan.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The upgrading of this arterial to a full arterial standard will improve access to the industrial area and improve north/south circulation in the west Visalia area. With the completion of the 198 Freeway, Plaza Drive will become a major access route for traffic going to and from the industrial area and the commercial development around the Plaza/Alta Interchange. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Plaza Drive with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Plaza	SR 198/ Goshen Ave.	12300	12000	1.03	F
	Goshen Ave./ Riggin Ave.	9100	12000	0.76	C

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Plaza	SR 198/ Goshen Ave.	12300	27000	0.46	A
	Goshen Ave./ Riggin Ave.	9100	27000	0.34	A

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Demaree Avenue - Goshen to Riggin

This road will be one of the key north-south links in Visalia in the 21st century. It will serve its own significant tributary area and also make up, in part, for the "missing link" of Mooney Boulevard between Goshen Avenue and Main Street. The project would widen this segment of Demaree Road to the standard arterial width of 110 feet to provide two lanes in each direction for through traffic, a right turn/transit/parking lane on each side, and a left turn median. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: No significant impacts are anticipated.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: This project is anticipated to be completed with the proposed development of the adjacent area into residential use. This development will require the completion of the Demaree arterial. Special attention will be given to the critical role this segment will play in replacing the missing segment of Mooney Boulevard.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: Completion of the Demaree arterial will improve north/south circulation in this section of the community. Demaree will provide the necessary arterial system for residential and commercial development in the area. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Demaree Road with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Demaree	Goshen Ave./ Houston Ave.	15300	12000	1.28	F
	Houston Ave./ Riggin Ave.	8000	12000	0.67	B

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Demaree	Goshen Ave./ Houston Ave.	15300	27000	0.57	A
	Houston Ave./ Riggin Ave.	8000	27000	0.30	A

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Court/Locust Connector

The purpose of this project is to provide a smoother transition between the Court-Locust one-way couplet north of Tulare Avenue and the two-way arterial section of Court Street south of Tulare. The one-way southbound connector from Locust to Court would be located north of Tulare Avenue, and would require acquisition of right-of-way currently occupied by residential properties. A 72 foot right-of-way is proposed, providing for two 8 foot parking lanes and three 12 foot travel lanes. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: No significant impacts are anticipated.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: No significant impacts are anticipated.

Light and Glare: No significant impacts are anticipated.

Land Use: Depending on the final alignment chosen, the project could require acquisition of right-of-way currently occupied by resi-

dential properties. Some of those properties lie in the Visalia Historic Preservation District. Therefore, the environmental impact report prepared for this project shall consider the alternatives to the project and impacts to the historic district. No other significant impacts are anticipated.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: No significant impacts are anticipated.

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Court - Walnut to Tulare

This street is designated as an arterial street, but it currently provides only one lane in each direction. The proposal is to provide for two lanes plus parking in each direction without a median. Left turn lanes would be striped at key intersections. This cross-section is intended to eliminate the need to acquire residences along this segment. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: No significant impacts are anticipated.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: Increases in projected traffic volumes will increase the noise level on this arterial. The improvements should mitigate some of the increase by improving traffic flow through the area.

Light and Glare: No significant impacts are anticipated.

Land Use: Some disruption of adjacent land uses may occur based on the need for additional right-of-way. Specific impacts will need to wait for further design details.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.
Housing: No significant impacts are anticipated.

Transportation/Circulation: The improved capacity of this section of Court will increase the level of service on this arterial. The completion of Court Street to arterial standards will provide a needed north/south arterial in the center of the community. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Court Street with and without the project:

2010 Forecast without Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Court St.	Walnut Ave./ W. Tulare Ave.	12900	15000	0.86	D

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Improved Capacity	Volume/ Capacity	Service Level
Court St.	Walnut Ave./ W. Tulare Ave.	12900	20000	0.65	B

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Santa Fe/Bridge Connectors

The northern connector is assessed in the Northeast Visalia Master Plan and that assessment is incorporated by reference. The precise location of the southern connector is not known at this time. It can be assumed that the connector will be located between Cypress and Noble. The precise alignment will be determined after detailed design work is initiated. The following represents an assessment of the southern connector based on information available at this time. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: No significant impacts are anticipated.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: The connection of Santa Fe and Bridge Streets will increase traffic using the Bridge Overcrossing of State Route 198. This increase in traffic will increase the noise in the area of the southern connector. The noise increase is expected to have minimal impacts on adjacent properties due to the proximity of the area to a light industrial use located at Santa Fe and Cypress. Residential uses on Bridge south of the connector will experience a reduction of traffic noise as traffic is moved from Bridge to Santa Fe north of Cypress.

Light and Glare: No significant impacts are anticipated.

Land Use: Several homes will be removed for the necessary right- of-way for the connector. The precise impact is unknown at this time. Factors effecting the overall impact include the right-of-way width, the exact plan line and the residential configuration in the area.

The removal of through traffic from Bridge south of the connector in front of Washington School, will improve the land use-traffic conflicts at this location.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: The project would eliminate some housing units. Opportunities to replace homes may result from the repackaging of surplus property.

Transportation/Circulation: The connection of Santa Fe and Bridge north and south of State Route 198 will optimize the Bridge Over-

crossing and the Santa Fe alignment. This will provide a continuous north/south collector in the central part of the community. Truck access to land use activities north and south of the highway will be improved by the connectors.

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Ben Maddox - Caldwell to Walnut

Portions of this designated arterial currently exist. The project would complete the missing links using the proposed standard 110 foot cross-section for an arterial street. Potential areas of impact include:

Earth: No significant impacts are anticipated.

Air: Extension of the Ben Maddox arterial will improve the overall circulation in the southeast portion of the community. That improvement will provide for more efficient circulation and will therefore improve the air quality.

Water: No significant impacts are anticipated.

Plant Life: No significant impacts are anticipated.

Animal: No significant impacts are anticipated.

Noise: The project will inject traffic noise into an area which currently has no noise impacts.

Light and Glare: No significant impacts are anticipated.

Land Use: This project is anticipated to be completed in conjunction with development of adjacent property. That development will necessitate the need for a north/south arterial roadway in this section. The roadway would therefore be completed in stages.

If however, the City initiates the construction of this project prior to development of adjacent property, Ben Maddox would provide added incentives to develop adjacent property.

Natural Resources: No significant impacts are anticipated.

Risk of Upset: No significant impacts are anticipated.

Population: No significant impacts are anticipated.

Housing: No significant impacts are anticipated.

Transportation/Circulation: The extension of the Ben Maddox arterial would provide a continuous north/south arterial in the south-east section of the community. The following table, extracted from Tables 5 and 8, shows anticipated traffic volumes, capacities and service levels on Ben Maddox with the project:

2010 Forecast with Project

Roadway	From/To	Forecast ADT	Existing Capacity	Volume/ Capacity	Service Level
Ben Maddox	Caldwell/ Walnut	11500	27000	0.43	A

Public Services: No significant impacts are anticipated.

Energy: No significant impacts are anticipated.

Utilities: No significant impacts are anticipated.

Human Health: No significant impacts are anticipated.

Aesthetics: No significant impacts are anticipated.

Recreational: No significant impacts are anticipated.

Cultural Resources: No significant impacts are anticipated.

PROJECT: Houston - Demaree to Santa Fe

This project will have significant impacts on surrounding land uses. It can be expected that some land uses will be eliminated in order to provide adequate right-of-way. It is necessary to develop a plan line for this project in order to fully assess the impacts. At the completion of that process, impacts of alternative alignments can be assessed.

COMMUNITY DEVELOPMENT POLICY IMPACTS

A. VISALIA GENERAL PLAN - LAND USE ELEMENT

The Circulation Element has been developed to be in harmony with the Land Use Element. Existing policies from the Land Use Element that affect transportation have been incorporated in the Circulation Element. Likewise, the Circulation Element contains a number of policies that will effect Land Use and land development project design. In Chapter IV, policies 2, 3, 5-8, 36 and 42 specifically address the areas of land use and land access.

As frequently noted in this document, land use and circulation are interdependent policy areas. As conditions change which influence either of these areas, it will be necessary to review both the Land Use and Circulation element and modify them concurrently to maintain the effectiveness of the circulation system.

B. VISALIA GENERAL PLAN - CIRCULATION ELEMENT

Chapter IV contains a complete listing of Visalia's circulation policies. In this Element, a number of changes have been made to existing policies, and a number of new policies have been added.

C. SPECIFIC PLANS

The following Specific Plans have been prepared for the City of Visalia and are incorporated herein by reference:

- Northeast Area Specific Plan
- Modoc Specific Plan
- Medical District Specific Plan
- Downtown Plan and Development Program
- Airport Master Plan (In Preparation)

The Northeast Area Specific Plan is currently being revised to incorporate the circulation concepts contained in the Circulation Element. The Circulation Element is in harmony with circulation concepts contained in the Modoc, Medical District and Downtown Plans. Material from the ongoing Airport Master Plan Update will be incorporated into the Circulation Element as it becomes available.

D. REDEVELOPMENT AREAS

There are currently two redevelopment areas in Visalia. The proposal for widening Mooney Boulevard has been made necessary in part due to the increase in traffic that will be attracted to the Boulevard by the

proposed increased density in the redevelopment area. City policy will require that the redevelopment activity include financing for a portion of the Mooney widening project. The East Visalia Redevelopment Plan contains certain elements that have been incorporated into the Circulation Element. In particular, the Bridge-Santa Fe connector and the Main to Center Street connector west of Ben Maddox Way are elements of the East Visalia Redevelopment Plan.

SIGNIFICANT IMPACTS AND MITIGATION MEASURES

A summary of anticipated significant impacts and their potential for mitigation is presented in Table 9. In general, the impacts of the Circulation Element will be observed as specific projects are implemented. Most of the impacts associated with the Element can be mitigated by proper design of the projects. Implementation of the majority of the projects will be required to mitigate impacts associated with growth projected for the City.

Table 13
Significant Impacts and Mitigation Measures

Earth	
Water	
Noise	o & x
Light and Glare	
Land Use	o & x
Transportation/Circulation	o
Fire Protection	
Police Protection	
Maintenance	o
Energy	
Aesthetics	
Recreation	

o significant mitigatable impacts
x significant impacts which cannot be mitigated.

Significant Impacts

Some significant noise impacts may be expected from transportation improvement projects which widen streets in residential areas. In particular, proposals for widening Houston Avenue and Goshen/Murray Avenue may lead to noise impacts. Increases in traffic on other residential streets designated as collector or arterial streets may also occur. The City's current policy is not to build sound walls to mitigate noise impacts on arterial streets.

Several of the proposed improvement projects may have significant impacts on land use, particularly where widening of existing streets is proposed. The impacts will range from loss of on-street parking to loss of some private property to right-of-way acquisition.

Significant positive impacts will accrue to the transportation/circulation system as the proposed improvement projects are implemented. The increase in street miles will lead to requirements for additional financial resources to be devoted to street maintenance.

Mitigation Measures

The proposed transportation improvement projects listed in Chapter VII are of themselves mitigation measures responding to increased traffic and reduced traffic service that will be generated as the City grows in the coming 25 years. Specific projects will induce impacts that may require mitigation measures. Environmental assessment at the time of implementation will determine the significance of the impacts and will identify feasible mitigation measures. Among the possible measures would be property acquisition or facility relocation in those cases where improvement projects require land in developed areas, roadway design or other measures to reduce noise, and provision of adequate funds to provide for the required additional street maintenance.

Significant Impacts Which Cannot be Avoided

Noise impacts may not be able to be mitigated in many parts of the City. Traffic increases can be expected on arterials and collectors where improvement projects are not designed. The layout of buildings along these streets is such that, particularly for residences fronting on collector and arterial streets, the techniques for mitigating noise (through sound walls) may be financially and aesthetically infeasible.

In certain areas of the City where right-of-way is limited and acquiring additional right-of-way is impractical, land use impacts such as loss of on-street parking may be unavoidable. Among such possible locations are Main Street west of Mooney Boulevard, Court Street between Tulare Avenue and Walnut Avenue, Goshen Avenue/Murray Avenue between Giddings and Court, and Houston Avenue between Mooney Boulevard and Santa Fe Avenue.

In all of these cases, environmental assessment at the time of implementation will determine the significance of the impacts and the feasibility of mitigating the impacts.

ALTERNATIVES TO THE PROPOSED CIRCULATION ELEMENT

Alternatives have been considered in the Circulation Element in three areas:

- Alternative Land Use Concepts

- Alternative Solutions to Circulation Problems
- Alternative Implementation Strategies

Land Use Alternatives: The process of evaluating the future traffic deficiencies in Visalia, three alternative land use scenarios were investigated. These included the Base Case land use definition, the Base Case with the proposed redevelopment of Mooney Boulevard added, and the Base Case with the proposed redevelopment of Mooney Boulevard and a regional mall added to the land use inventory. Table 5 (Page 26) documents the analysis undertaken to determine the adequacy of the circulation system under each of these three land use scenarios. As documented in Chapter III, the conclusion of the analysis was that the worst case (Base plus Mooney plus Mall) was not greatly unlike the other alternatives, and that a common set of improvement projects could be proposed that responded to all three alternatives.

Alternative Solutions: The Circulation Element contains a section in Chapter V entitled "Circulation Issues Yet to Be Resolved." This section discusses issues for which alternatives exist that had not been resolved prior to preparation of the Draft Element. These issues include:

Circulation concepts for the proposed regional mall: At the time of preparation of this document, a site for the location of a proposed regional mall had not been determined; however, estimates of its probable size indicated that additional access and traffic service capacity would be required regardless of the location. For example, if the Mall were located near the intersection of Akers Road and State Route 198, additional capacity would be required on Akers and on the frontage roads of the proposed freeway. Additional capacity and/or upgrading of the status of frontage roads from collector to arterial might be required west of Shirk road to provide adequate circulation. The alternatives in response to the mall are typical of the type of evaluation that will be required for any major new traffic generator that is constructed in Visalia.

Access to State Route 99: Chapter III addresses the question of using either Goshen Avenue or Betty Drive as the primary connector to State Route 99 in northwest Visalia.

Airport Circulation: The circulation system in the vicinity of the airport will depend on the amount of land needed for airport related facilities and the intensity of land uses proposed. The location of some collector roadways will be dependent on the land use proposals developed in the Airport Master Plan Update.

In the initial working paper developed in support of the Circulation Element, alternatives to circulation in the vicinity of Bridge Street and Santa Fe Avenue were considered. The alternatives included using Santa Fe Avenue as the collector and building a bridge to carry Santa Fe Avenue over State Route 198, creating a one-way couplet using Bridge

Street and Santa Fe Avenue, and creating a two-way couple using both Santa Fe and Bridge Streets, and building connectors between them. The two-way collector using the two streets was selected as being the most practical for reasons of cost and minimal impacts.

Alternative Implementation Strategies: In terms of alternatives to the proposed Circulation Element as a whole, there are two fundamental alternatives, and an infinite range of alternatives that combine elements of each. The No-Build Alternative would freeze the circulation system in its current state, and implement no projects to respond to increased traffic. This alternative is documented in Table 5, which shows the traffic volumes, volume/capacity ratios and service levels that would occur if no improvements are implemented.

The second alternative would implement all of the projects proposed in Chapter VII, in response of the adopted policy that all freeways, arterials and collectors will operate at Service Level C. Table 6 documents the traffic volumes, volume/capacity ratios and service levels that would occur if all improvements are implemented.

Between these two fundamental alternatives is in infinite combination of the various projects. Except for the State Route 198 project which will create some changes in travel routes (though not travel patterns) and the Mooney Boulevard Project, the projects respond to locally created travel demand. Failure to implement one or more of these projects would result largely in the No-Build service levels, with relatively little spillage onto adjacent facilities. Tables 5 and 6 thus represent reasonable documentation of conditions that will exist depending on whether each of the proposed projects is implemented.

RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

The cumulative long-term adverse impacts of the Circulation Element are largely in the area of traffic-related noise. Other factors, such as possible relative decline in air quality due to increased traffic in the region, are more directly related to growth in projected growth in population in the City; these factors are related more to land use policy than circulation policies.The City of Visalia believes the project (update of the Circulation Element) is justified now because the Element has not been updated in 11 years. The City has seen significant growth since that time, and it is necessary to update the Plan to be better prepared for the coming 20 years. The alternative, retaining the existing circulation system, would lead to increased congestion and delay to travelers as the City grows into the future.

SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL CHANGES

Significant unavoidable environmental changes judged to result from implementation of the Circulation Element are related to noise and land use; as described above, the widening of certain streets in existing portions of the City will require some right-of-way acquisition, and possibly some relocation. Other environmental changes are not significant for the purpose of analysis under CEQA.

GROWTH INDUCING IMPACTS

Land use planning and circulation system planning are so inevitably interrelated that it is not always possible to determine whether the Land Use or the Circulation Element is to source of growth inducing impacts. In the City of Visalia, land use planning has been done in a firm and consistent manner by the City Council, with the result that the Circulation System has generally paralleled or followed changes in land use. If that method of policy implementation continues, there is only one project in the proposed Circulation Element that might be considered growth inducing. That project is the proposed freeway project for State Route 198 between Road 80 and County Center Road. The increase in carrying capacity from this freeway project will permit an increased level of traffic to enter and leave Visalia via its principal gateway to the region. As such, the freeway project will permit Visalia to continue to attract industry, commerce and the attendant housing that its General Plan policies call for.

All of the other projects in the Circulation Element respond to the growth in population that is implied in the Land Use Element. Projects to widen existing facilities respond to growth in general, whereas proposed new facilities respond to conversion of undeveloped land to urban uses in the immediate vicinity of the new uses. As such, these projects are supportive of the growth implied in the general plan, and not growth inducing in and of themselves.

EFFECTS FOUND TO BE NOT SIGNIFICANT

From the initial study, the following areas were found not to have significant impacts:

Earth, except for disruptions, displacement and compaction of soil in areas where new or improved transportation facilities are constructed.

Air

Water, except for changes in drainage patterns in areas of new transportation facilities

Plant Life

Animal Life

Natural Resources

Risk of Upset

Population

Housing

Schools, Parks, Recreation Facilities, and other Governmental Services

Utilities

Human Health

Cultural Resources

CUMULATIVE IMPACTS

This circulation plan is based on a forecast of land use for the City in the year 2010. The forecast is based on State Department of Finance projections for Tulare County for that year, modified on the basis of discussions among City, County and TCAG staff. The projection indicates that City population may grow by 60-100% in the next 20-25 years. Chapter III details the land use forecast for the year 2010.

The cumulative impact of this amount of growth on the circulation system is documented in Tables 5 and 8 of this document. Table 5 indicates the cumulative impact of population growth on the existing circulation system, and documents the "No-action" alternative. Table 8 indicates the condition that would obtain if the major impacts are mitigated.

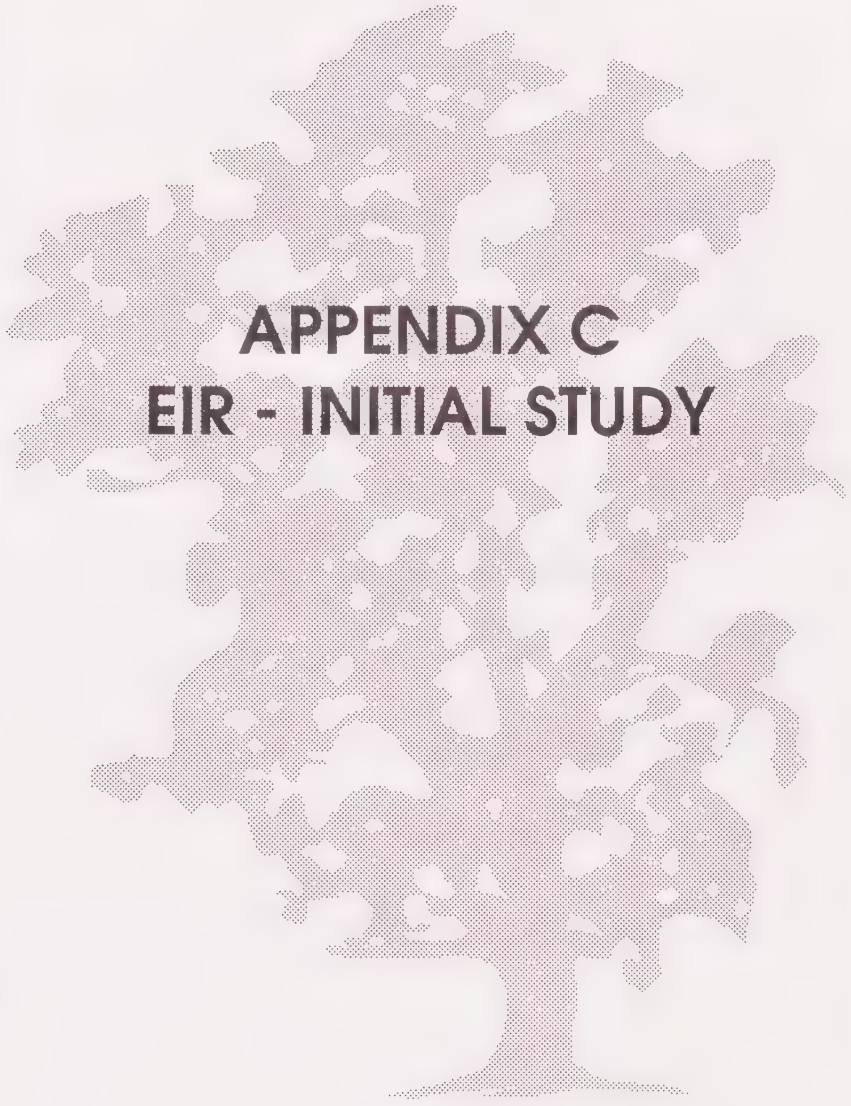
APPENDIX B
EXAMPLES OF TRANSPORTATION IMPACT FEES IN OTHER CALIFORNIA JURISDICTIONS

VISALIA GENERAL PLAN

Examples of Transportation Impact Fees in California

Jurisdiction	General Fee	Residential Development	Commercial Development	Office Development	Industrial Development
City of Campbell	$.50 per sq ft.				
City of Ceres		$588-$890/unit			$4,320/acre
Contra Costa County		$1,600-$2,000/unit	$7.00/sq. ft.	$3.50/sq. ft.	$19,600/acre
City of Costa Mesa		$590-$1,305/unit	$1.30-$1.75/sq. ft.	$1.30-$1.75/sq. ft.	$1.30-$1.75/sq. ft.
City of Cupertino		$240/unit	$1.00/sq. ft.	$1.00/sq. ft.	
City of Gilroy		$439/unit			
Los Angeles County		$1,855-$2,650/unit	$2,650-$13,250/acre		$7,950/acre
City of Los Angeles	$2.01/daily trip				
City of Napa		$192-$355/unit	$0.60-$2.05/sq. ft.	$0.355-$0.437/sq. ft.	
City of Newport Beach	$84.85/daily trip				
City of Oceanside	$183/daily trip				
City of Oxard	$92/daily trip				
City of Palo Alto	$1.20/sq. ft.				
City of Pasadena			$1.24/sq. ft.		$1.24/sq. ft.
City of Rancho Cucamonga	1% of project valuation				
City of Richmond		$1,135-$1,335/unit	$1.52-$2.005/sq. ft.		
Riverside County		$140-$150/unit	$2,500/acre		$1,750/acre
City of Roseville	1% of project valuation				
City of San Ramon		$1,500/unit	$4.50/sq. ft.	$4.50/sq. ft.	
City of Santa Ana		$590-$1,010/unit	$1.30/sq. ft.	$1.30/sq. ft.	$1.30/sq. ft.
Santa Barbara County	$350 - $1,300/peak hour trip				
City of Stockton	$7.29 per daily trip				
City of Ventura		$600-$1,200/unit	$2.40-$3.00/sq. ft.		$1.00-$2.40/sq. ft.
City of Woodland	$2,600/acre				

Source: DKS Associates, 1986



APPENDIX C
EIR - INITIAL STUDY

VISALIA GENERAL PLAN

NOTICE OF PREPARATION

TO: _____ (Address)

FROM: City of Visalia
707 E. Acequia (Address)
Visalia, Calif. 93291

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

The City of Visalia will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the probable environmental effects are contained in the attached materials. A copy of the Initial Study X is, ___ is not, attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Phyllis Coring at the address shown above. We will need the name for a contact person in your agency.

Project Title: Visalia Circulation Element

Project Applicant, if any:

DATE July 24, 1987 Signature Phyllis Coring

Title Planning Manager

Telephone (209) 738-3328

Reference: California Administrative Code, Title 14, Sections 15082(a), 15103, 15375.

Env. Doc. No. 87-54
X-Ref.:
City of Visalia Eng. Dept.
Visalia Circulation Element
Date: July 16, 1987

VISALIA CIRCULATION ELEMENT
ENVIRONMENTAL ASSESSMENT
INITIAL STUDY

I. GENERAL INFORMATION

The City of Visalia is in the process of updating the Circulation Element of it's General Plan. This process will lead to the preparation and adoption of a new Circulation Element for the Visalia metropolitan area.

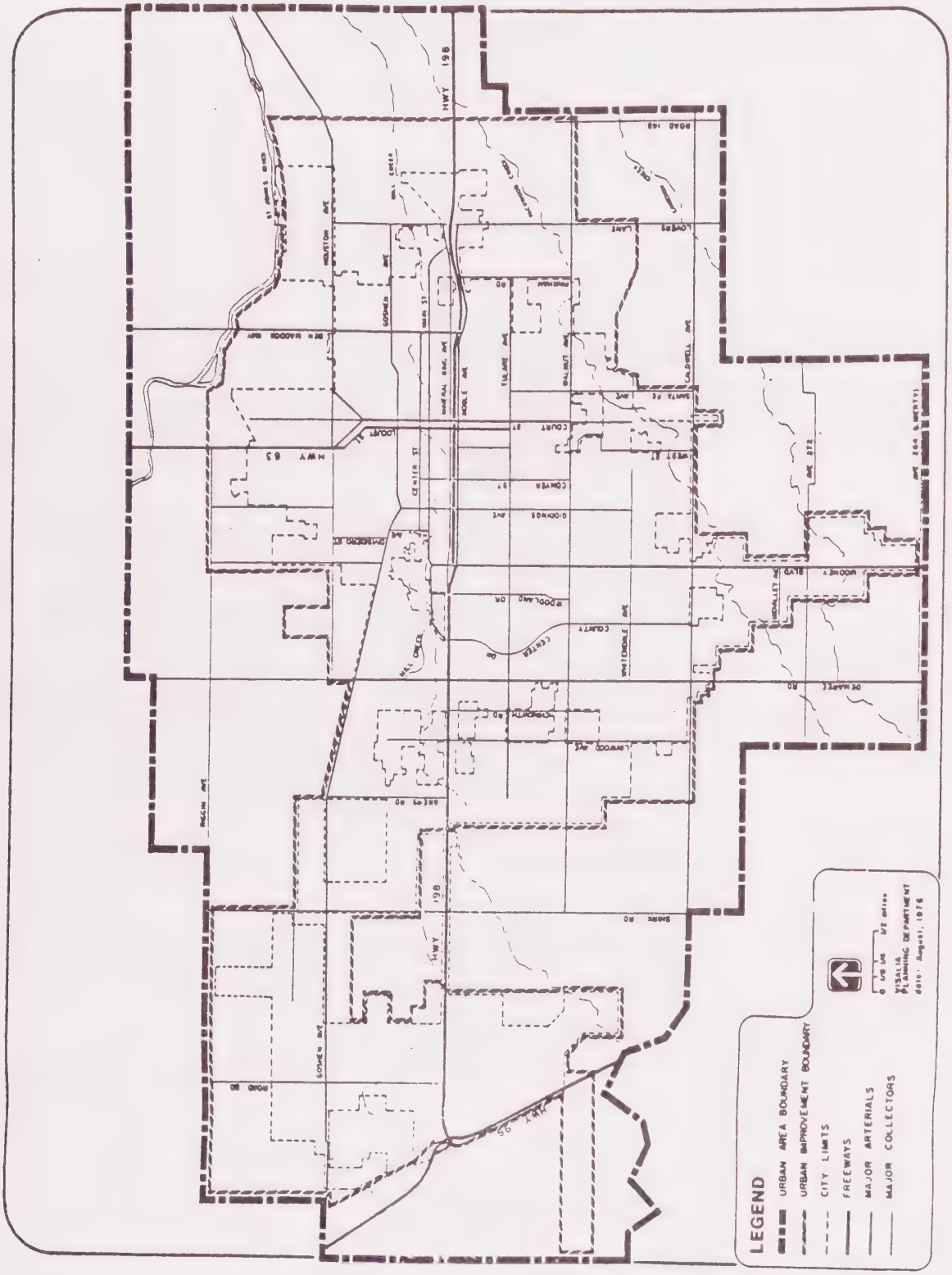
The Circulation Element will review each of the following subject areas: street and highway circulation; public transit; railroads; bicycles; aviation; trucks and goods movement within the subject area. Each subject area will be reviewed for existing issues and conditions and long-range impacts and mitigation measures.

The Circulation Element will be prepared in conformance with the existing Visalia General Plan, including Land Use & Housing Elements. The Circulation Element will be prepared in conjunction with an update of the Countywide Circulation Element being prepared by the County of Tulare. The Visalia Circulation Element will be prepared to assure consistency between these two documents.

The attached map depicts the limits anticipated for the Visalia Circulation Element.

Attachment A: Environmental Check List

Attachment B: Discussion of Environmental Impacts


LEGEND
URBAN AREA BOUNDARY
URBAN IMPROVEMENT BOUNDARY
CITY LIMITS
FREEWAYS
MAJOR ARTERIALS
MAJOR COLLECTORS
VISALIA
PLANNING DEPARTMENT
date: August, 1974
HWY 198
HWY 63
HWY 99

APPENDIX 'A'

ENVIRONMENTAL CHECKLIST FORM
(To Be Completed By Lead Agency)

I. Background

1. Name of Proponent City of Visalia
2. Address and Phone Number of Proponent 707 E. Acequia, Visalia, Calif. 93291, (209) 738-3328
3. Date of Checklist Submitted July 23, 1987
4. Agency Requiring Checklist City of Visalia
5. Name of Proposal, if applicable Visalia Circulation Element

II. Environmental Impacts

(Explanations of all "yes" and "maybe" answers are required on attached sheets.)

	Yes	Maybe	No
1. Earth. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?			X
b. Disruptions, displacements, compaction or overcovering of the soil?	X		
c. Change in topography or ground surface relief features?			X
d. The destruction, covering or modification of any unique geologic or physical features?			X
e. Any increase in wind or water erosion of soils, either on or off the site?			X
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?			X
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?			X

	Yes	Maybe	No
2. Air. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality?	___	___	X
b. The creation of objectionable odors?	___	___	X
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	___	___	X
3. Water. Will the proposal result in:			
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	___	___	X
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	X	___	___
c. Alterations to the course or low of flood waters?	___	___	X
d. Change in the amount of surface water in any water body?	___	___	X
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	___	___	X
f. Alteration of the direction or rate of flow of ground waters?	___	___	X
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	___	___	X
h. Substantial reduction in the amount of water otherwise available for public water supplies?	___	___	X
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	___	___	X
4. Plant Life. Will the proposal result in:	___	___	___
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	___	___	X

	Yes	Maybe	No
b. Reduction of the numbers of any unique, rare or endangered species of plants?	___	___	X
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	___	___	X
d. Reduction in acreage of any agricultural crop?	___	___	X
5. **Animal Life.** Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	___	___	X
b. Reduction of the numbers of any unique, rare or endangered species of animals?	___	___	X
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	___	X
d. Deterioration to existing fish or wildlife habitat?	___	___	X
6. **Noise.** Will the proposal result in:			
a. Increases in existing noise levels?	X	___	___
b. Exposure of people to severe noise levels?	___	___	X
7. **Light and Glare.** Will the proposal produce new light or glare?	X	___	___
8. **Land Use.** Will the proposal result in a substantial alteration of the present or planned land use of an area?	X	___	___
9. **Natural Resources.** Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	___	___	X
10. **Risk of Upset.** Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	___	___	X

	Yes	Maybe	No
b. Possible interference with an emergency response plan or an emergency evacuation plan?			X
11. **Population.** Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?			X
12. **Housing.** Will the proposal affect existing housing, or create a demand for additional housing?			X
13. **Transportation/Circulation.** Will the proposal result in:			
a. Generation of substantial additional vehicular movement?			X
b. Effects on existing parking facilities, or demand for new parking?			X
c. Substantial impact upon existing transportation systems?	X		
d. Alterations to present patterns of circulation or movement of people and/or goods?	X		
e. Alterations to waterborne, rail or air traffic?			X
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?			X
14. **Public Services.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?		X	
b. Police protection?		X	
c. Schools?			X
d. Parks or other recreational facilities?			X
e. Maintenance of public facilities, including roads?	X		
f. Other governmental services?			X
15. **Energy.** Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	X		

	Yes	Maybe	No
b. Substantial increase in demand upon existing sources or energy, or require the development of new sources of energy?	X		
16. **Utilities.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			X
17. **Human Health.** Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?			X
b. Exposure of people to potential health hazards?			X
18. **Aesthetics.** Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?		X	
19. **Recreation.** Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?		X	
20. **Cultural Resources.**			
a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?			X
b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?			X
c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?			X
d. Will the proposal restrict existing religious or sacred uses within the potential impact area?			X
21. **Mandatory Findings of Significance.**			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate			

	Yes	Maybe	No
important examples of the major periods of California history or prehistory?	___	___	X
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	___	___	X
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	___	___	X
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	___	X

III. Discussion of Environmental Evaluation
(Narrative description of environmental impacts.)

IV. Determination
(To be completed by the Lead Agency.)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED. ☐

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☒

Date July 24, 1987

Signature

For _____

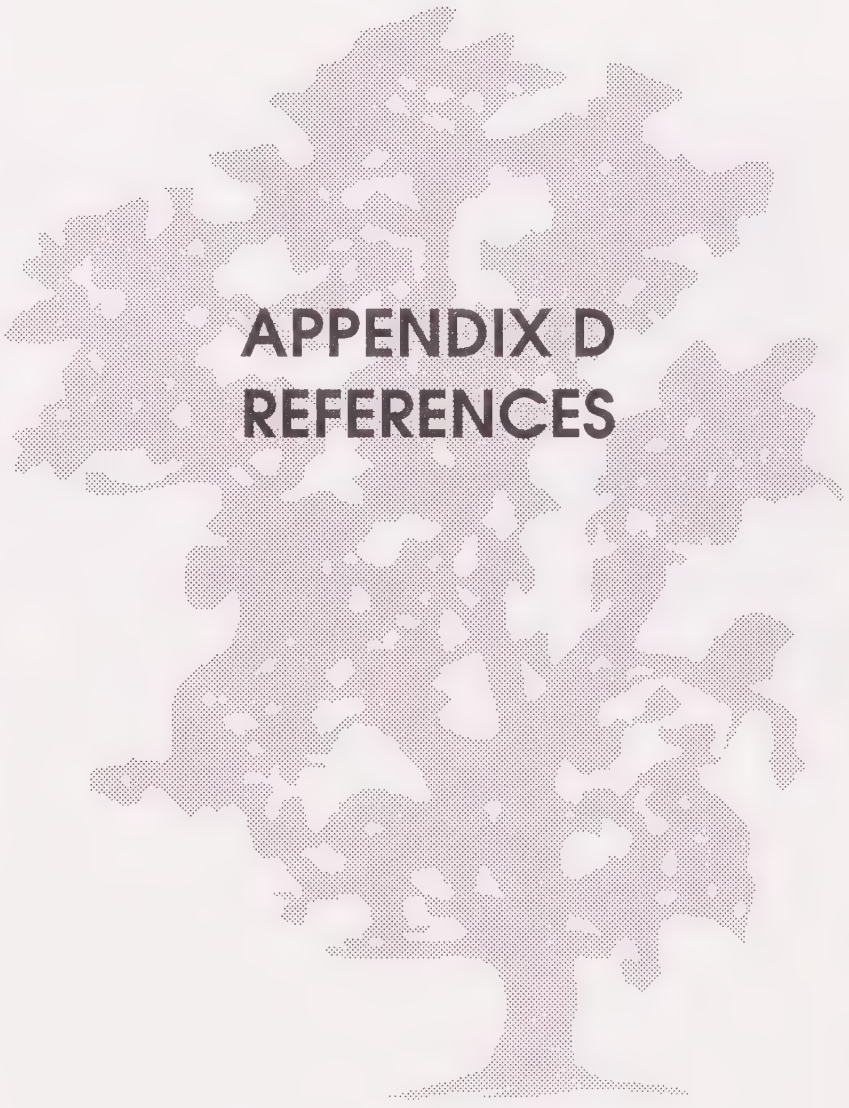
ATTACHMENT 'B'

DISCUSSION OF ENVIRONMENTAL IMPACTS

1. Earth - b:	The construction of new city streets and the widening of existing streets will increase the amount of surface area covered by asphalt. Some displacement of soils will result from the construction of major roadways, such as the State Highway 198 Freeway.
3. Water - b:	The increase in road surface will result in an increase in surface water runoff.
6. Noise - a:	The increase in traffic volumes along existing and proposed arterial roadways will result in the increase of automobile noise adjacent to these roadways.
7. Light & Glare:	Additional street lights and traffic signals associated with the street system will increase the nighttime light in areas of the community.
8. Land Use:	The Circulation Element inconjunction with the Land Use Element establish development patterns and densities. The Circulation Element will be prepared so as to be consistent with the proposed land uses anticipated for the year 2010.
13. Transportation/Circulation - c:	The future circulation system will have a substantial impact on the transportation system in Visalia. The goal of the project is to establish a blueprint which will enhance the future transportation system.
d:	The future travel patterns will be greatly influenced by the land use plan. The update of the Circulation Element will attempt to define the transportation system needed to efficiently meet the future travel patterns.
14. Public Services - a & b:	Improvements to the circulation system will improve the response time for all emergency equipment/services including fire protection and police protection.
e:	Road maintenance will increase as the number of miles of City maintained streets is increased due to land use development.
15. Energy a & b:	The future transportation system will continue to be based on the automobile and trucks for mobility. This will result in a continuing need for energy.

18. Aesthetics: The construction of the necessary street and highway facilities may result in some impacts to the aesthetics of the community.

19. Recreation: Improvements to the transportation system will result in improved access to recreational facilities and an increased opportunity for non-motorized and motorized recreation.



APPENDIX D
REFERENCES

VISALIA GENERAL PLAN

Airport Master Plan, Visalia Municipal Airport; September, 1973; August W. Compton & Associates
Assessment and Need for and Financial Feasibility of Parking Structures in Downtown Visalia; June, 1984; Quad Consultants
California Environmental Quality Act (CEQA); 1970
City of Visalia Bicycle Plan; October 1982; Citizens Bicycle Committee (Not Adopted)
City of Visalia General Plan; 1976; as amended
City of Visalia Improvement Standards; Undated; City of Visalia Engineering Department
City of Visalia Short Range Transit Plan, 1980-1986; December, 1980; DKS Associates
City of Visalia 1986 Traffic Counts; 1986
Downtown Plan and Development Program; 1981
Hotel/Convention Center Expansion Draft EIR; March, 1987, City of Visalia
Medical District Specific Plan; 1987
Modoc Specific Plan; 1981
Mooney Boulevard Redevelopment Project DEIR; April, 1987; Gunn Russel Copenhaver & Company
Northeast Area Specific Plan; 1979
Traffic Impact Analysis for the Mooney Boulevard Redevelopment Project; March, 1987; TJKM Transportation Consultants
Tulare County Aviation Element and Airport System Plan; July, 1981; Daniel Mann, Johnson & Mendenhall
Tulare County Travel Forecasting Model; TCAG; 1987
Visalia City Coach Draft 1987 Transit Plan; January, 1987
1983-84 Bikeway Element; October 1982; Citizens Bicycle Committee (Not Adopted)

APPENDIX E
COST ESTIMATION ASSUMPTIONS AND CALCULATIONS

VISALIA GENERAL PLAN

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

CALDWELL AVE - @ MOONEY

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	3,600	SF	4.50	$16,200
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	49,600	SF	2.50	$124,000
PAVEMENT REMOVAL	2,400	SF	1.00	$2,400
MEDIAN CURB	3,200	LF	5.00	$16,000
CURB & GUTTER	2,400	LF	7.50	$18,000
CURB & GUTTER REMOVAL	2,400	LF	2.00	$4,800
SIDEWALK	21,000	SF	2.00	$42,000
SIDEWALK REMOVAL	21,000	SF	0.70	$14,700
LANDSCAPE/IRRIGATION	42,000	SF	2.00	$84,000
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	8	EA	1,000.00	$8,000
MODIFY TRAFFIC SIGNAL	0	EA	50,000.00	$0
NEW TRAFFIC SIGNAL	0	EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	48,000.00	$48,000
SIGNING/STRIPING	1	LS	12,000.00	$12,000
DRAINAGE	1	LS	16,000.00	$16,000
UTILITIES	1	LS	10,000.00	$10,000
DESIGN,PERMITS & INSP(20%)	1	LS	83,220.00	$83,220
			SUBTOTAL	$499,320
			CONTINGENCY (20%)	$99,864
			TOTAL CONSTRUCTION COST	$599,184

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (COMM)	47,000	SF	20.00	940,000
BLDG. ACQUISTION (1)	3,600	SF	70.00	252,000
			TOTAL DAMAGES COST	$1,192,000

TOTAL PROJECT COST $1,791,184

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

WHITENDALE AVE - @ MOONEY

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	9,400	SF	4.50	$42,300
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	42,400	SF	2.50	$106,000
PAVEMENT REMOVAL	2,000	SF	1.00	$2,000
MEDIAN CURB	2,800	LF	5.00	$14,000
CURB & GUTTER	2,000	LF	7.50	$15,000
CURB & GUTTER REMOVAL	2,000	LF	2.00	$4,000
SIDEWALK	18,500	SF	2.00	$37,000
SIDEWALK REMOVAL	18,500	SF	0.70	$12,950
LANDSCAPE/IRRIGATION	37,000	SF	2.00	$74,000
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	5	EA	1,000.00	$5,000
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	40,000.00	$40,000
SIGNING/STRIPING	1	LS	10,000.00	$10,000
DRAINAGE	1	LS	10,000.00	$10,000
UTILITIES	1	LS	10,000.00	$10,000
DESIGN,PERMITS & INSP(20%)	1	LS	76,450.00	$76,450
			SUBTOTAL	$458,700
			CONTINGENCY (20%)	$91,740
			TOTAL CONSTRUCTION COST	$550,440

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (COMM)	40,400	SF	20.00	808,000
BLDG. ACQUISTION (2)	9,400	SF	70.00	658,000
			TOTAL DAMAGES COST	$1,466,000

TOTAL PROJECT COST $2,016,440

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

WALNUT AVE - @ MOONEY

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	4,700	SF	4.50	$21,150
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	43,800	SF	2.50	$109,500
PAVEMENT REMOVAL	2,000	SF	1.00	$2,000
MEDIAN CURB	2,800	LF	5.00	$14,000
CURB & GUTTER	2,000	LF	7.50	$15,000
CURB & GUTTER REMOVAL	2,000	LF	2.00	$4,000
SIDEWALK	19,000	SF	2.00	$38,000
SIDEWALK REMOVAL	19,000	SF	0.70	$13,300
LANDSCAPE/IRRIGATION	38,000	SF	2.00	$76,000
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	5	EA	1,000.00	$5,000
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	40,000.00	$40,000
SIGNING/STRIPING	1	LS	10,000.00	$10,000
DRAINAGE	1	LS	10,000.00	$10,000
UTILITIES	1	LS	10,000.00	$10,000
DESIGN,PERMITS & INSP(20%)	1	LS	73,590.00	$73,590
			SUBTOTAL	$441,540
			CONTINGENCY (20%)	$88,308
			TOTAL CONSTRUCTION COST	$529,848

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (COMM)	41,800	SF	20.00	836,000
BLDG. ACQUISTION (5)	4,700	SF	70.00	329,000
			TOTAL DAMAGES COST	$1,165,000

TOTAL PROJECT COST $1,694,848

mwh:P86264C1/10405



DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

TULARE AVE - @ MOONEY

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	17,900	SF	4.50	$80,550
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	39,600	SF	2.50	$99,000
PAVEMENT REMOVAL	2,600	SF	1.00	$2,600
MEDIAN CURB	2,800	LF	5.00	$14,000
CURB & GUTTER	2,600	LF	7.50	$19,500
CURB & GUTTER REMOVAL	2,600	LF	2.00	$5,200
SIDEWALK	24,700	SF	2.00	$49,400
SIDEWALK REMOVAL	24,700	SF	0.70	$17,290
LANDSCAPE/IRRIGATION	49,400	SF	2.00	$98,800
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	7	EA	1,000.00	$7,000
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	52,000.00	$52,000
SIGNING/STRIPING	1	LS	13,000.00	$13,000
DRAINAGE	1	LS	14,000.00	$14,000
UTILITIES	1	LS	20,000.00	$20,000
DESIGN,PERMITS & INSP(20%)	1	LS	98,468.00	$98,468
			SUBTOTAL	$590,808
			CONTINGENCY (20%)	$118,162
			TOTAL CONSTRUCTION COST	$708,970

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (COMM)	37,000	SF	20.00	740,000
BLDG. ACQUISTION (7)	17,800	SF	70.00	1,246,000
			TOTAL DAMAGES COST	$1,986,000

TOTAL PROJECT COST $2,694,970

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

CALDWELL AVE - FAIRWAY AVE TO LOVER'S LANE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	1,020,000	SF	2.50	$2,550,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	29,500	LF	5.00	$147,500
CURB & GUTTER	29,500	LF	7.50	$221,250
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	147,800	SF	2.00	$295,600
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	266,000	SF	2.00	$532,000
NEW STREET LIGHT	100	EA	2,000.00	$200,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	590,000.00	$590,000
SIGNING/STRIPING	1	LS	147,500.00	$147,500
DRAINAGE	1	LS	940,000.00	$940,000
UTILITIES	1	LS	100,000.00	$100,000
DESIGN,PERMITS & INSP(20%)	1	LS	1,144,770.00	$1,144,770
			SUBTOTAL	$6,868,620
			CONTINGENCY (20%)	$1,373,724
			TOTAL CONSTRUCTION COST	$8,242,344

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	384,000	SF	2.00	768,000
BLDG. ACQUISTION	0	SF	50.00	0
			TOTAL DAMAGES COST	$768,000

TOTAL PROJECT COST $9,010,344

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

SR 198 - ROAD 80 TO COUTY CENTER DRIVE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	246,000	CY	7.00	$1,722,000
BRIDGE	24,000	SF	100.00	$2,400,000
PAVEMENT	1,275,600	SF	2.50	$3,189,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	0	LF	5.00	$0
CURB & GUTTER	18,000	LF	7.50	$135,000
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	45,000	SF	2.00	$90,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	45,000	SF	2.00	$90,000
NEW STREET LIGHT	78	EA	2,000.00	$156,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL	0	EA	50,000.00	$0
NEW TRAFFIC SIGNAL	6	EA	75,000.00	$450,000
TRAFFIC CONTROL	1	LS	960,000.00	$960,000
SIGNING/STRIPING	1	LS	240,000.00	$240,000
DRAINAGE	1	LS	2,650,000.00	$2,650,000
UTILITIES	1	LS	50,000.00	$50,000
DESIGN,PERMITS & INSP(20%)	1	LS	2,426,400.00	$2,426,400
			SUBTOTAL	$14,558,400
			CONTINGENCY (20%)	$2,911,680
			TOTAL CONSTRUCTION COST	$17,470,080

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (COMM/RURAL)	1,830,000	SF	20.00	36,600,000
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$36,600,000

TOTAL PROJECT COST $54,070,080

mwh:P86264C1/10405

DKS ASSOCIATES P86246X1

VISALIA CIRCULATION PLAN 21-Nov-88
ORDER OF MAGNITUDE COST ESTIMATE

GOSHEN AVE - WIDEN FROM ROAD 80 TO MOONEY BLVD

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	940,000	SF	2.50	$2,350,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	39,200	LF	5.00	$196,000
CURB & GUTTER	39,200	LF	7.50	$294,000
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	156,800	SF	2.00	$313,600
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	450,800	SF	2.00	$901,600
NEW STREET LIGHT	130	EA	2,000.00	$260,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	784,000.00	$784,000
SIGNING/STRIPING	1	LS	196,000.00	$196,000
DRAINAGE	1	LS	1,165,000.00	$1,165,000
UTILITIES	1	LS	100,000.00	$100,000
DESIGN,PERMITS & INSP(20%)	1	LS	1,312,040.00	$1,312,040
			SUBTOTAL	$7,872,240
			CONTINGENCY (20%)	$1,574,448
			TOTAL CONSTRUCTION COST	$9,446,688

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	392,000	SF	2.00	784,000
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$784,000

TOTAL PROJECT COST $10,230,688

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

GOSHEN AVE/MURRAY AVE - WIDEN FROM MOONEY BLVD TO SANTA FE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	80,000	SF	2.50	$200,000
PAVEMENT REMOVAL	16,000	SF	1.00	$16,000
MEDIAN CURB	16,000	LF	5.00	$80,000
CURB & GUTTER	16,000	LF	7.50	$120,000
CURB & GUTTER REMOVAL	16,000	LF	2.00	$32,000
SIDEWALK	72,000	SF	2.00	$144,000
SIDEWALK REMOVAL	72,000	SF	0.70	$50,400
LANDSCAPE/IRRIGATION	0	SF	2.00	$0
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	54	EA	1,000.00	$54,000
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	320,000.00	$320,000
SIGNING/STRIPING	1	LS	80,000.00	$80,000
DRAINAGE	1	LS	108,000.00	$108,000
UTILITIES	1	LS	50,000.00	$50,000
DESIGN,PERMITS & INSP(20%)	1	LS	250,880.00	$250,880
			SUBTOTAL	$1,505,280
			CONTINGENCY (20%)	$301,056
			TOTAL CONSTRUCTION COST	$1,806,336

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RESID)	0	SF	5.00	0
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$0

TOTAL PROJECT COST $1,806,336

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

GOSHEN AVE - WIDEN FROM SANTA FE TO LOVER'S LANE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	381,800	SF	2.50	$954,500
PAVEMENT REMOVAL	0	SF	1.00	$0
MEDIAN CURB	16,600	LF	5.00	$83,000
CURB & GUTTER	16,600	LF	7.50	$124,500
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	83,000	SF	2.00	$166,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	182,000	SF	2.00	$364,000
NEW STREET LIGHT	56	EA	2,000.00	$112,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	332,000.00	$332,000
SIGNING/STRIPING	1	LS	83,000.00	$83,000
DRAINAGE	1	LS	527,000.00	$527,000
UTILITIES	1	LS	100,000.00	$100,000
DESIGN,PERMITS & INSP(20%)	1	LS	569,200.00	$569,200
			SUBTOTAL	$3,415,200
			CONTINGENCY (20%)	$683,040
			TOTAL CONSTRUCTION COST	$4,098,240

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	281,200	SF	2.00	562,400
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$562,400

TOTAL PROJECT COST $4,660,640

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

RIGGIN AVE - STATE ROUTE 99 TO NEW GOSHEN AVE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	87,600	CY	7.00	$613,200
BRIDGE	26,400	SF	100.00	$2,640,000
PAVEMENT	324,300	SF	2.50	$810,750
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	9,400	LF	5.00	$47,000
CURB & GUTTER	9,400	LF	7.50	$70,500
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	47,000	SF	2.00	$94,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	127,000	SF	2.00	$254,000
NEW STREET LIGHT	34	EA	2,000.00	$68,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	188,000.00	$188,000
SIGNING/STRIPING	1	LS	47,000.00	$47,000
DRAINAGE	1	LS	318,000.00	$318,000
UTILITIES	1	LS	50,000.00	$50,000
DESIGN,PERMITS & INSP(20%)	1	LS	1,040,090.00	$1,040,090
			SUBTOTAL	$6,240,540
			CONTINGENCY (20%)	$1,248,108
			TOTAL CONSTRUCTION COST	$7,488,648

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	517,000	SF	2.00	1,034,000
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$1,034,000

TOTAL PROJECT COST $8,522,648

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

RIGGIN AVE - WIDEN FROM DEMAREE TO DINUBA BLVD.

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	703,800	SF	2.50	$1,759,500
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	20,400	LF	5.00	$102,000
CURB & GUTTER	20,400	LF	7.50	$153,000
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	102,000	SF	2.00	$204,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	275,000	SF	2.00	$550,000
NEW STREET LIGHT	68	EA	2,000.00	$136,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	408,000.00	$408,000
SIGNING/STRIPING	1	LS	102,000.00	$102,000
DRAINAGE	1	LS	646,000.00	$646,000
UTILITIES	1	LS	100,000.00	$100,000
DESIGN,PERMITS & INSP(20%)	1	LS	832,100.00	$832,100
			SUBTOTAL	$4,992,600
			CONTINGENCY (20%)	$998,520
			TOTAL CONSTRUCTION COST	$5,991,120

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	265,200	SF	2.00	530,400
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$530,400

TOTAL PROJECT COST $6,521,520

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

ALTA WAY (ROAD 80) - STATE ROUTE 198 TO RIGGIN AVE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	100	CY	7.00	$700
BRIDGE	4,800	SF	100.00	$480,000
PAVEMENT	760,000	SF	2.50	$1,900,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	22,000	LF	5.00	$110,000
CURB & GUTTER	22,000	LF	7.50	$165,000
CURB & GUTTER REMOVAL	4,000	LF	2.00	$8,000
SIDEWALK	99,000	SF	2.00	$198,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	253,000	SF	2.00	$506,000
NEW STREET LIGHT	74	EA	2,000.00	$148,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	440,000.00	$440,000
SIGNING/STRIPING	1	LS	110,000.00	$110,000
DRAINAGE	1	LS	698,000.00	$698,000
UTILITIES	1	LS	100,000.00	$100,000
DESIGN,PERMITS & INSP(20%)	1	LS	972,740.00	$972,740
			SUBTOTAL	$5,836,440
			CONTINGENCY (20%)	$1,167,288
			TOTAL CONSTRUCTION COST	$7,003,728

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL/INDUST)	288,000	SF	2.00	576,000
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$576,000

TOTAL PROJECT COST $7,579,728

mwh:P86264C1/10405

DKS ASSOCIATES

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21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

DEMAREE RD - RIGGIN TO GOSHEN

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	434,700	SF	2.50	$1,086,750
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	12,600	LF	5.00	$63,000
CURB & GUTTER	12,600	LF	7.50	$94,500
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	63,000	SF	2.00	$126,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	170,000	SF	2.00	$340,000
NEW STREET LIGHT	42	EA	2,000.00	$84,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	252,000.00	$252,000
SIGNING/STRIPING	1	LS	63,000.00	$63,000
DRAINAGE	1	LS	399,000.00	$399,000
UTILITIES	1	LS	50,000.00	$50,000
DESIGN,PERMITS & INSP(20%)	1	LS	511,650.00	$511,650
			SUBTOTAL	$3,069,900
			CONTINGENCY (20%)	$613,980
			TOTAL CONSTRUCTION COST	$3,683,880

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	163,800	SF	2.00	327,600
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$327,600

TOTAL PROJECT COST $4,011,480

mwh:P86264C1/10405



DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

MOONEY BLVD - STATE ROUTE 99 TO CALDWELL AVE.

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	76,600	SF	4.50	$344,700
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	1,102,400	SF	2.50	$2,756,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	21,400	LF	5.00	$107,000
CURB & GUTTER	20,600	LF	7.50	$154,500
CURB & GUTTER REMOVAL	43,200	LF	2.00	$86,400
SIDEWALK	206,000	SF	2.00	$412,000
SIDEWALK REMOVAL	206,000	SF	0.70	$144,200
LANDSCAPE/IRRIGATION	223,000	SF	2.00	$446,000
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	73	EA	1,000.00	$73,000
MODIFY TRAFFIC SIGNAL	9	EA	50,000.00	$450,000
NEW TRAFFIC SIGNAL	0	EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	412,000.00	$412,000
SIGNING/STRIPING	1	LS	103,000.00	$103,000
DRAINAGE	1	LS	146,000.00	$146,000
UTILITIES	1	LS	50,000.00	$50,000
DESIGN,PERMITS & INSP(20%)	1	LS	1,136,960.00	$1,136,960
			SUBTOTAL	$6,821,760
			CONTINGENCY (20%)	$1,364,352
			TOTAL CONSTRUCTION COST	$8,186,112

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (COMM)	370,000	SF	20.00	7,400,000
BLDG. ACQUISTION	86,600	SF	70.00	6,062,000
			TOTAL DAMAGES COST	$13,462,000

TOTAL PROJECT COST $21,648,112

mwh:P86264C1/10405

DKS ASSOCIATES

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VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

COURT/LOCUST - CONNECTOR NORTH OF TULARE AVE.

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	14,000	SF	4.50	$63,000
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	49,000	SF	2.50	$122,500
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	2,000	LF	5.00	$10,000
CURB & GUTTER	2,000	LF	7.50	$15,000
CURB & GUTTER REMOVAL	500	LF	2.00	$1,000
SIDEWALK	10,000	SF	2.00	$20,000
SIDEWALK REMOVAL	2,500	SF	0.70	$1,750
LANDSCAPE/IRRIGATION	10,000	SF	2.00	$20,000
NEW STREET LIGHT	4	EA	2,000.00	$8,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	40,000.00	$40,000
SIGNING/STRIPING	1	LS	10,000.00	$10,000
DRAINAGE	1	LS	30,000.00	$30,000
UTILITIES	1	LS	20,000.00	$20,000
DESIGN,PERMITS & INSP(20%)	1	LS	72,250.00	$72,250
			SUBTOTAL	$433,500
			CONTINGENCY (20%)	$86,700
			TOTAL CONSTRUCTION COST	$520,200

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RESID)	43,200	SF	5.00	216,000
BLDG. ACQUISTION (14)	14,000	SF	50.00	700,000
			TOTAL DAMAGES COST	$916,000

TOTAL PROJECT COST $1,436,200

mwh:P86264C1/10405



DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

COURT ST - WIDEN BETWEEN WALNUT AND TULARE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	57,200	SF	2.50	$143,000
PAVEMENT REMOVAL	5,200	SF	1.00	$5,200
MEDIAN CURB	5,200	LF	5.00	$26,000
CURB & GUTTER	5,200	LF	7.50	$39,000
CURB & GUTTER REMOVAL	5,200	LF	2.00	$10,400
SIDEWALK	26,000	SF	2.00	$52,000
SIDEWALK REMOVAL	26,000	SF	0.70	$18,200
LANDSCAPE/IRRIGATION	26,000	SF	2.00	$52,000
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	18	EA	1,000.00	$18,000
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	104,000.00	$104,000
SIGNING/STRIPING	1	LS	26,000.00	$26,000
DRAINAGE	1	LS	36,000.00	$36,000
UTILITIES	1	LS	20,000.00	$20,000
DESIGN,PERMITS & INSP(20%)	1	LS	109,960.00	$109,960
			SUBTOTAL	$659,760
			CONTINGENCY (20%)	$131,952
			TOTAL CONSTRUCTION COST	$791,712

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RESID)	114,400	SF	5.00	572,000
BLDG. ACQUISTION	0	SF	50.00	0
			TOTAL DAMAGES COST	$572,000

TOTAL PROJECT COST $1,363,712

mwh:P86264C1/10405

DKS ASSOCIATES P86246X1

VISALIA CIRCULATION PLAN 21-Nov-88
ORDER OF MAGNITUDE COST ESTIMATE

SANTA FE BRIDGE CONNECTOR - NORTH END

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	14,000	SF	4.50	$63,000
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	49,000	SF	2.50	$122,500
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	2,000	LF	5.00	$10,000
CURB & GUTTER	2,000	LF	7.50	$15,000
CURB & GUTTER REMOVAL	500	LF	2.00	$1,000
SIDEWALK	10,000	SF	2.00	$20,000
SIDEWALK REMOVAL	2,500	SF	0.70	$1,750
LANDSCAPE/IRRIGATION	10,000	SF	2.00	$20,000
NEW STREET LIGHT	4	EA	2,000.00	$8,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	40,000.00	$40,000
SIGNING/STRIPING	1	LS	10,000.00	$10,000
DRAINAGE	1	LS	30,000.00	$30,000
UTILITIES	1	LS	20,000.00	$20,000
DESIGN,PERMITS & INSP(20%)	1	LS	72,250.00	$72,250
			SUBTOTAL	$433,500
			CONTINGENCY (20%)	$86,700
			TOTAL CONSTRUCTION COST	$520,200

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RESID)	43,200	SF	5.00	216,000
BLDG. ACQUISTION (14)	14,000	SF	50.00	700,000
			TOTAL DAMAGES COST	$916,000

TOTAL PROJECT COST $1,436,200

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

SANTA FE BRIDGE CONNECTOR - SOUTH END

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	14,000	SF	4.50	$63,000
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	49,000	SF	2.50	$122,500
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	2,000	LF	5.00	$10,000
CURB & GUTTER	2,000	LF	7.50	$15,000
CURB & GUTTER REMOVAL	500	LF	2.00	$1,000
SIDEWALK	10,000	SF	2.00	$20,000
SIDEWALK REMOVAL	2,500	SF	0.70	$1,750
LANDSCAPE/IRRIGATION	10,000	SF	2.00	$20,000
NEW STREET LIGHT	4	EA	2,000.00	$8,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	40,000.00	$40,000
SIGNING/STRIPING	1	LS	10,000.00	$10,000
DRAINAGE	1	LS	30,000.00	$30,000
UTILITIES	1	LS	20,000.00	$20,000
DESIGN,PERMITS & INSP(20%)	1	LS	72,250.00	$72,250
			SUBTOTAL	$433,500
			CONTINGENCY (20%)	$86,700
			TOTAL CONSTRUCTION COST	$520,200

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RESID)	43,200	SF	5.00	216,000
BLDG. ACQUISTION (14)	14,000	SF	50.00	700,000
			TOTAL DAMAGES COST	$916,000

TOTAL PROJECT COST $1,436,200

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

BEN MADDOX EXTENSION - WALNUT AVE TO CALDWELL AVE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	312,400	SF	2.50	$781,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	9,000	LF	5.00	$45,000
CURB & GUTTER	9,000	LF	7.50	$67,500
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	45,000	SF	2.00	$90,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	121,500	SF	2.00	$243,000
NEW STREET LIGHT	30	EA	2,000.00	$60,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	180,000.00	$180,000
SIGNING/STRIPING	1	LS	45,000.00	$45,000
DRAINAGE	1	LS	284,000.00	$284,000
UTILITIES	1	LS	30,000.00	$30,000
DESIGN,PERMITS & INSP(20%)	1	LS	365,100.00	$365,100
			SUBTOTAL	$2,190,600
			CONTINGENCY (20%)	$438,120
			TOTAL CONSTRUCTION COST	$2,628,720

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	495,000	SF	2.00	990,000
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$990,000

TOTAL PROJECT COST $3,618,720

mwh:P86264C1/10405



DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

HOUSTON AVE - DEMAREE TO MOONEY

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	360,000	SF	2.50	$900,000
PAVEMENT REMOVAL		SF	1.00	$0
MEDIAN CURB	10,400	LF	5.00	$52,000
CURB & GUTTER	10,400	LF	7.50	$78,000
CURB & GUTTER REMOVAL	0	LF	2.00	$0
SIDEWALK	52,000	SF	2.00	$104,000
SIDEWALK REMOVAL	0	SF	0.70	$0
LANDSCAPE/IRRIGATION	95,000	SF	2.00	$190,000
NEW STREET LIGHT	34	EA	2,000.00	$68,000
RELOCATE STREET LIGHT	0	EA	1,000.00	$0
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	208,000.00	$208,000
SIGNING/STRIPING	1	LS	52,000.00	$52,000
DRAINAGE	1	LS	328,000.00	$328,000
UTILITIES	1	LS	30,000.00	$30,000
DESIGN,PERMITS & INSP(20%)	1	LS	402,000.00	$402,000
			SUBTOTAL	$2,412,000
			CONTINGENCY (20%)	$482,400
			TOTAL CONSTRUCTION COST	$2,894,400

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RURAL)	137,000	SF	2.00	274,000
BLDG. ACQUISTION		SF	50.00	0
			TOTAL DAMAGES COST	$274,000

TOTAL PROJECT COST $3,168,400

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

HOUSTON AVE - MOONEY TO SANTA FE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	80,000	SF	4.50	$360,000
GRADING	0	CY	7.00	$0
BRIDGE	0	SF	100.00	$0
PAVEMENT	190,000	SF	2.50	$475,000
PAVEMENT REMOVAL	15,800	SF	1.00	$15,800
MEDIAN CURB	15,800	LF	5.00	$79,000
CURB & GUTTER	15,800	LF	7.50	$118,500
CURB & GUTTER REMOVAL	15,800	LF	2.00	$31,600
SIDEWALK	79,000	SF	2.00	$158,000
SIDEWALK REMOVAL	79,000	SF	0.70	$55,300
LANDSCAPE/IRRIGATION	79,000	SF	2.00	$158,000
NEW STREET LIGHT	0	EA	2,000.00	$0
RELOCATE STREET LIGHT	54	EA	1,000.00	$54,000
MODIFY TRAFFIC SIGNAL		EA	50,000.00	$0
NEW TRAFFIC SIGNAL		EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	316,000.00	$316,000
SIGNING/STRIPING	1	LS	79,000.00	$79,000
DRAINAGE	1	LS	108,000.00	$108,000
UTILITIES	1	LS	30,000.00	$30,000
DESIGN,PERMITS & INSP(20%)	1	LS	407,640.00	$407,640
			SUBTOTAL	$2,445,840
			CONTINGENCY (20%)	$489,168
			TOTAL CONSTRUCTION COST	$2,935,008

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY (RESID)	174,000	SF	5.00	870,000
BLDG. ACQUISTION	20,000	SF	50.00	1,000,000
			TOTAL DAMAGES COST	$1,870,000

TOTAL PROJECT COST $4,805,008

mwh:P86264C1/10405

DKS ASSOCIATES

P86246X1
21-Nov-88

VISALIA CIRCULATION PLAN
ORDER OF MAGNITUDE COST ESTIMATE

PLAZA ROAD EXTENSION TO WALNUT AVENUE

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
BUILDING DEMOLITION	0	SF	4.50	$0
GRADING	3,000	CY	7.00	$21,000
BRIDGE	0	SF	100.00	$0
BRIDGE REMOVAL	0	SF	20.00	$0
PAVEMENT	87,040	SF	2.50	$217,600
PAVEMENT REMOVAL	1,000	SF	1.00	$1,000
MEDIAN CURB	0	LF	5.00	$0
CURB & GUTTER	2,830	LF	10.00	$28,300
CURB & GUTTER REMOVAL	225	LF	2.00	$450
SIDEWALK	0	SF	2.00	$0
SIDEWALK REMOVAL	0	SF	1.00	$0
LANDSCAPE/IRRIGATION	2,500	SF	2.00	$5,000
NEW STREET LIGHT	7	EA	2,000.00	$14,000
NEW TRAFFIC SIGNAL	0	EA	75,000.00	$0
TRAFFIC CONTROL	1	LS	20,000.00	$20,000
SIGNING/STRIPING	1	LS	5,000.00	$5,000
DRAINAGE	1	LS	75,000.00	$75,000
UTILITIES	1	LS	20,000.00	$20,000
DESIGN,PERMITS & INSP(20%)	1	LS	81,470.00	$81,470
			SUBTOTAL	$488,820
			CONTINGENCY (20%)	$97,764
			TOTAL CONSTRUCTION COST	$586,584

DAMAGES

DESCRIPTION	QUANTITY	UNIT	COST	TOTAL COST
RIGHT-OF-WAY	0	SF	5.00	0
BLDG. ACQUISTION	0	SF	70.00	0
			TOTAL DAMAGES COST	$0

TOTAL PROJECT COST $586,584

mwh/P86241X3/10405

APPENDIX F
ORGANIZATIONS AND AGENCIES CONTACTED

VISALIA GENERAL PLAN

ORGANIZATIONS & AGENCIES CONTACTED

TULARE COUNTY ASSOCIATION OF GOVERNMENTS
COUNTY CIVIC CENTER, ROOM 101
VISALIA, CA 93291

TRANSPORTATION PLANNING AGENCY
COUNTY CIVIC CENTER, ROOM 10
VISALIA, CA 93291

CALTRANS, DISTRICT 06
ATTN: ALLEN MCCUEN
P.O. BOX 12616
FRESNO, CA 93778

COUNTY OF TULARE
BUILDING & PLANNING DEPT.
COUNTY CIVIC CENTER, ROOM 101
VISALIA, CA 93291

COUNTY OF TULARE
PUBLIC WORKS DEPARTMENT
COUNTY CIVIC CENTER, ROOM 10
VISALIA, CA 93291

SOUTHERN PACIFIC TRANSPORTATION COMPANY
P.O. BOX 3036
BAKERSFIELD, CA 93305

SANTA FE RAILROAD
P.O. BOX 1947
FRESNO, CA 93718

STATE OF CALIFORNIA
OFFICE OF PLANNING & RESEARCH
STATE CLEARINGHOUSE
1400 TENTH STREET
SACRAMENTO, CA 95814

VISALIA CHAMBER OF COMMERCE
720 W. MINERAL KING AVENUE
VISALIA, CA 93291

VISALIA UNIFIED SCHOOL DISTRICT
315 E. ACEQUIA
VISALIA, CA 93291

TULARE COUNTY AIR POLLUTION CONTROL DISTRICT
COUNTY CIVIC CENTER
VISALIA, CA 93291

TULARE COUNTY FIRE PROTECTION PLANNING
1968 S. LOVERS LANE
VISALIA, CA 93277

CALIFORNIA WATER SERVICE COMPANY
125 W. MAIN STREET
VISALIA, CA 93291

SOUTHERN CALIFORNIA EDISON COMPANY
P.O. BOX 900
TULARE, CA 93275

WINGS WEST AIRLINES
9500 W. AIRPORT DRIVE
VISALIA, CA 93277

VISALIA LEGISLATIVE GROUP
P.O. BOX 205
VISALIA, CA 93279

ST. PAUL'S SCHOOL
6101 W. GOSHEN AVENUE
VISALIA, CA 93291

QUAD ENGINEERING
P.O. BOX 3699
VISALIA, CA 93278

TULARE COUNTY REDEVELOPMENT AGENCY
COUNTY CIVIC CENTER, ROOM 204
VISALIA, CA 93291

BUILDING INDUSTRY ASSOCIATION OF TULARE COUNTY
120 N. FLORAL STREET
VISALIA, CA 93291

MICHAEL KNOPF AND ASSOCIATES
711 N. COURT STREET, SUITE "O"
VISALIA, CA 93291

WEST VISALIA KIWANIS CLUB
P.O. BOX 1046
VISALIA, CA 93279

POWELL AND MACGLASHAN
1624 S. COURT STREET
VISALIA, CA 93277

TULARE COUNTY DEPARTMENT OF HEALTH SERVICES
COUNTY CIVIC CENTER
VISALIA, CA 93291

VISALIA BOARD OF REALTORS, INC.
301 W. NOBLE AVENUE
VISALIA, CA 93277

NORTH

SCALE 1" = 1000'

PLAZA

RIGGIN

GOSHEN

SH 198

WALNUT

CALDWELL

LIBERTY

Urban Area Boundary

T. 18 S.

T. 19 S.

R. 23 E.

R. 24 E.

PLAZA PARK

St. John's River

SHIRK

Tagus

AKERS

DEMAREE

MOONEY BLVD. (SH 63)

COURT

BEN MADDOX

LOVERS LANE

Urban Area Boundary

STREET AND HIGHWAY CLASSIFICATION

- Freeway
- Major Arterial
- Arterial
- Collector
- Special Treatment Under Consideration

- Freeway Interchange
- Freeway Grade Separation

City of Visalia
CIRCULATION ELEMENT

UPDATED 10-86